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DETROIT MEDICAL JOURNAL

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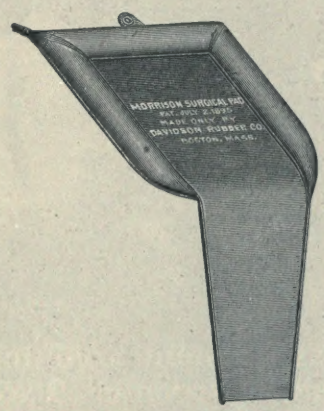

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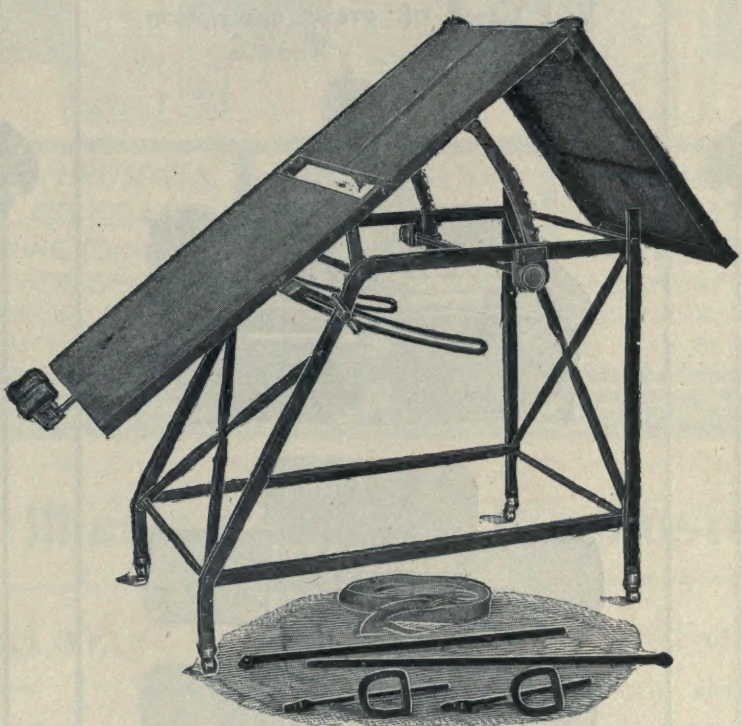

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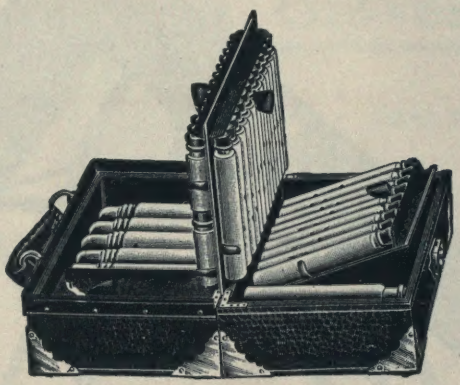

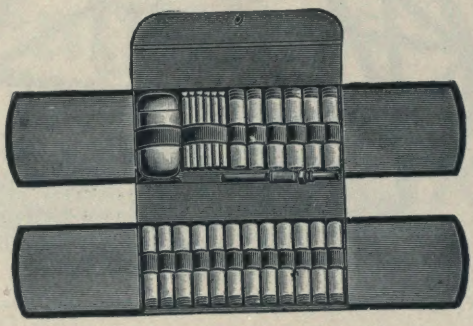

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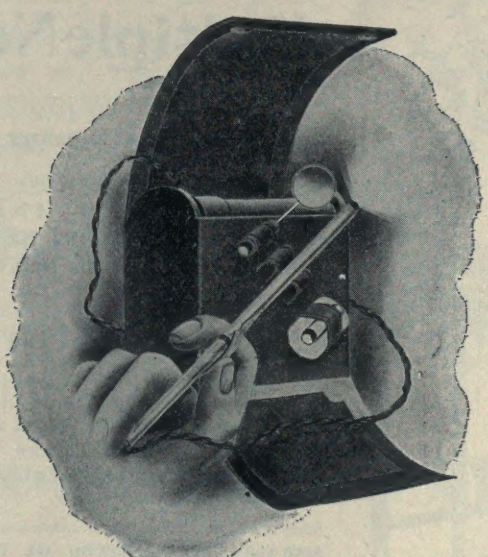

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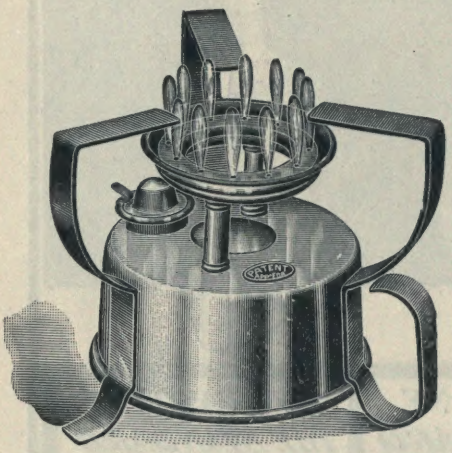

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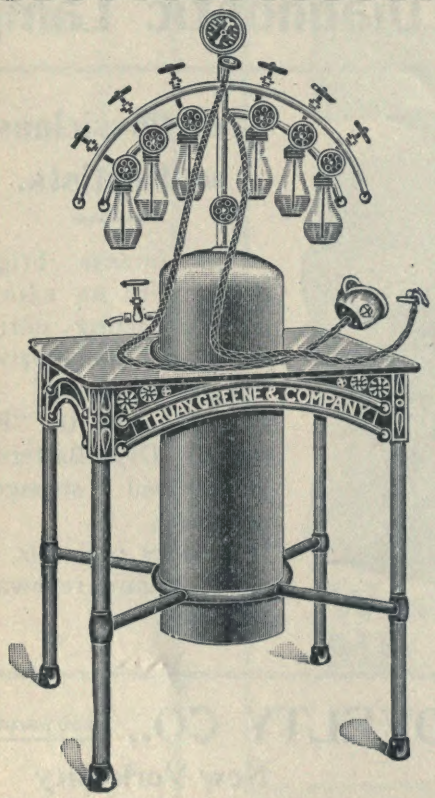

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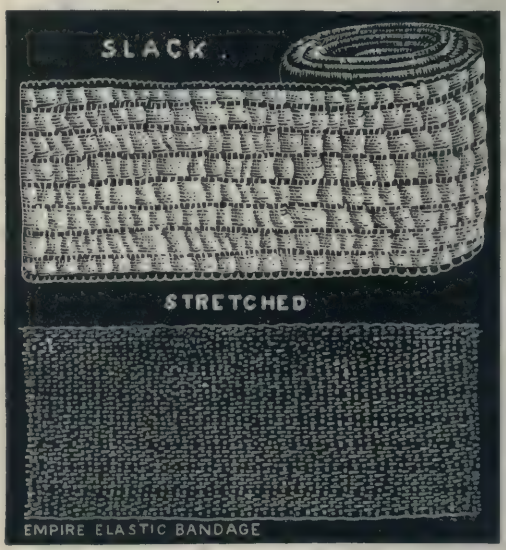

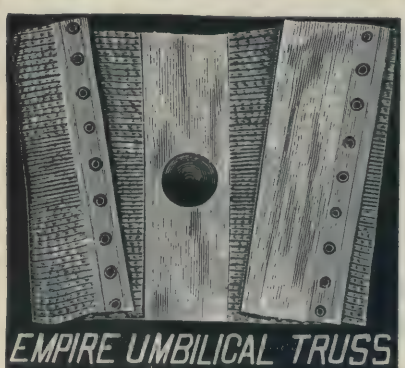

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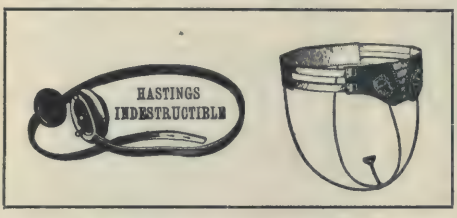

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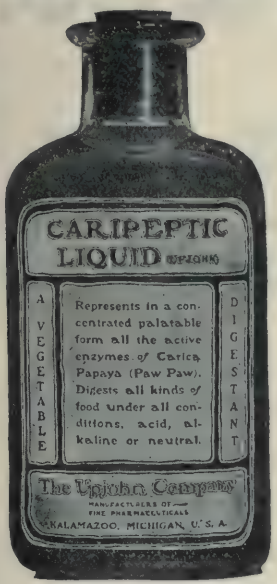
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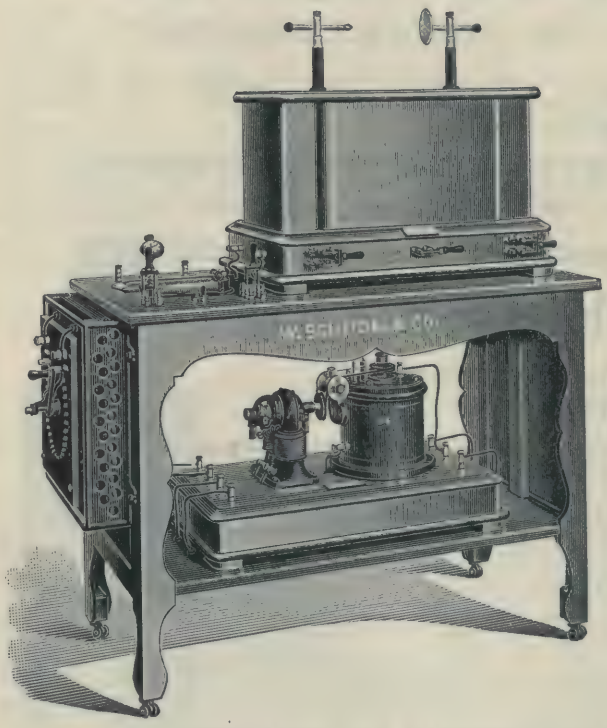

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THE TREATMENT OF ANAL AND RECTAL DISEASES, WITHOUT GENERAL ANÆSTHESIA.*

By WM. L. DICKINSON, A. M., M. D.,
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Mr. President and Gentlemen:

I chose this subject, not that it was new, but to emphasize the necessity of not making the mistake of associating the treatment of anal and rectal diseases with the use of general anæsthesia in all cases, and also that I might profit from your discussion and criticism; for often the discussion yields much more wheat than the essay, and I have no doubt but it will prove true in this case.

We are all creatures of habit, and our thoughts and actions are apt to run in certain channels, until it seems nearly impossible to think or do anything out of the old way.

The treatment of anal and rectal diseases has been so long associated with that of general anæsthesia, that when a patient presents himself, and we have made an examination, we unconsciously begin to solve the mental problem, of how he will take the anæsthetic, and the number of days he will be confined to the house after the operation.

To the surgeon there is something exceedingly pleasant in the thought, that by giving an anæsthetic, he can perform his operation in a short time, thereby placing the patient on the road to a perfect recovery.

But what are the feelings of the average patient, when he is told that he must take the anæsthetic?

We all know that he immediately asks if it cannot be done without the chloroform, and from the expression of his face, and the tremor in his voice, we can understand what thoughts are passing through his brain, and the conflict that is going on in his mind.

We assure the trembling and frightened patient that it is only a pleasure to gradually lose consciousness of what is occurring about us, and that he ought to be profoundly thankful for this great blessing, chloroform.

How many physicians has it been your good fortune to meet, who were willing to submit to general anæsthesia, if there was the least chance of escaping it? I must confess that my experience with physicians has been, that they are the most timid patients.

I do not wish to be understood as taking the position that all diseased conditions of the anus and rectum can be successfully dealt with without the aid of general anæsthesia; but I do claim, that there are many cases, which can be cured, either with or without local anæesthesia, and that it is our duty as surgeons to give our patients the benefits of the safer method.

We have all had an experience similar to this, viz: A patient comes to us, and

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Detroit, Mich., August 15, 1903.

having made an examination, we inform him that he can be cured, provided he is willing to have an operation, and that it will be necessary for him to take an anæsthetic. Reluctantly he consents to our proposition, and returns home, with the understanding that the operation is to be made as soon as he can be prepared for it. But having talked with his friends, he decides not to take the chloroform, and calls us up by telephone to inform us that he has changed his mind, and will not have the operation just at present, as he seems to feel some better. In a few days we learn that the patient has gone to another doctor, and that the other doctor has promised to do what he can for him without the use of chloroform, and we also know that if the patient gets any benefit whatever from the treatment, that his influence will always be in favor of the doctor who did not insist upon giving chloroform. We may know that he showed very poor judgment, and was very foolish not to follow our advice, and be permanently cured, but on the other hand, he may know that he feels much better now, and as he did not have to take the chloroform, he will not worry over what may occur in the future.

The time-honored treatment of anal fissure by dilatation, under chloroform, was both effective and speedy; but we can accomplish the same results in a little longer time, by painting the fissure with a ten per cent. cocaine solution, and then dilating the sphincters with Pratt's rectal dilators, commencing with the smallest, and increasing to the largest size that the patient can stand at each treatment.

By the forcible dilatation of the sphincters under an anæsthetic we can usually cure our patient by one treatment, whereas, under the gradual dilatation method it may require two or three weeks to accomplish the same result, but when a patient consults us and we explain the two methods to him, he nearly always chooses the longer method, if he can possibly spare the time to make the requisite number of calls at our office. This is quite natural, as everyone shrinks from anything called an operation, and readily takes up the treatment that is nearly painless. It is well to paint the fissure with a ten per cent. silver nitrate solution, after the dilatation. I instruct the patient to return in three days for another treatment, and to apply to the fissure twice daily, after bathing with hot water, an ointment composed of orthoform gr. xx, ichthyol ʒij, lanolin ʒj. Superficial fistula, ischio-rectal abscess, external hæmorrhoids, and many cases of internal hæmorrhoids, can be operated upon under filtration, just as well as under general anaesthesia. Patients will consent to our making these simple operations, if we will only not subject them to a general anæsthetic.

Many persons who are now great sufferers from the common diseases of the rectum, would gladly have an operation for their relief, if we would only assure them that they could be easily cured, and without the necessity of losing consciousness. We would also make more financially, and keep many a patient from going to some man, who perhaps knows little or nothing about the case, but does have a far better knowledge of human nature than we, and also understands the business side of the profession.

I consider it a duty we owe to our patients and also to ourselves, to do all in our power to keep them from going to the irregular practitioner, for as regular, educated physicians, we ought to be able to cope with all diseases of the rectum, in an intelligent manner, and thus give entire satisfaction to our patients.

I have sometimes thought that our teachers make the mistake of holding up too prominently before their students, the operative treatment of rectal diseases,

thus giving them a false idea of the real work done by the rectal surgeon.

Students do not become familiar with the daily office work, or acquire that ease in examination, diagnosis, and treatment essential to the best results. In my opinion, our students should be taught that the greater number of our patients seek our advice and aid for ailments that respond readily to office treatment that can be given without general anæsthesia.

917 Genesee Avenue.

THE RATIONAL TREATMENT OF THE OPIUM HABIT, WITH REPORT OF UNUSUAL RECOVERY.*

By SAMUEL BELL, M. D.,
Detroit, Mich.

Although statistics show that the number of victims to drug and alcohol addiction is rapidly increasing, those who have made a special study of such disorders are forced to admit that the beneficial results of treatment are disappointing, both as regards the behavior of the case during treatment and the results following the withdrawal of the drug and the discharge of the patient.

Much of our failure in this direction may be due to the wrecked nervous systems resulting from the many unscientific "short" and "painless" cures, which stare us in the face whenever we glance through the advertising pages of the present-day newspaper or magazine. It is absolutely necessary for the general practitioner and the laity both to recognize that the average case of drug addiction requires as careful and scientific a course of treatment as does the incipient case of insanity.

One of the first essentials for success is that the patient must be personally anxious to be freed from the disease into which he or she has inadvertently fallen. It must, however, not be lost sight of that the establishment of a desire to be freed from the craving is not the only requisite —the nervous system behind the will power must be restored to normal activity. A "re-education of the dormant will" must be attained.

It is of great importance that the patient be established in some institution for a variable length of time, where he may not only be properly observed and restrained if necessary, but also be in a position to receive skillful and rational daily treatment. It is necessary to make a good beginning under favorable circumstances and to win the confidence of the patient.

The chief reason for failure to obtain a permanent cure of the various drug habitués is the insufficient time usually allowed for restoring the nervous system as nearly as possible to its condition previous to the abuse of the drug. My experience in this direction has convinced me that the average case should be under careful daily treatment in an institution for at least four months, and that the patient should be under proper supervision, at his home or elsewhere, for a full year thereafter.

The adoption of a proper and indicated method of medical treatment is of great importance. Space will not permit me to discuss the various methods of treatment, such as the "abrupt cut-off," "gradual reduction," "substitution," etc. The nature of the case will often determine the method of procedure. Sudden withdrawal of the drug is often not only dangerous to life, but productive of relapses, inasmuch as sufficient time is not usually allowed for the production of restoration of the delicate nervous structure and func-

*Written for the Detroit Medical Journal.

tion, and for recovery from the "shock" which always ensues.

A short description of the deleterious action of the opium series upon the body-cells and organs will aid in a proper explanation of the characteristic symptoms following opium addiction and a comprehension of them. Prominent among the symptoms is the great depression, especially marked on the psychical functions. The respiratory and vasomotor centers are seriously disturbed. Disorder is especially manifest along the entire alimentary canal, hyperacidity of the gastric contents, indigestion and constipation resulting. The temperature falls, the secretions become clogged, and the liver functionates in a sluggish manner. The excretion of carbonic acid gas is lessened, lactic acid accumulates in the blood and urine, and glycogen disappears from the liver.

The majority of patients who present themselves for treatment are either in adult life, or have not been afflicted with the habit for any considerable length of time. The case described below is therefore both interesting and important, inasmuch as the patient had made use of morphia, both hypodermically and per stomach, for at least twenty years, and had used other anodynes for twenty years previously. Yet, although this patient was over seventy years of age when received for treatment, it was found possible not only to withdraw entirely drugs of all kinds, but also to place the patient in a condition in which she could pass the remainder of her days not only in comfort and comparative health, but one also in which she was freed from both the necessity and the craving for anodynes of any kind.

When this patient, a married woman of seventy-one years, came under my supervision she presented a complete picture of all the ills coincident with a long-continued abuse of opiates. For several years previous to this time she had "been the round" of a number of institutions, without the complete removal of the drug being made possible.

The symptoms of morphinism are too characteristic to require much elucidation. Prominent in this case were the physical and mental incapacity for the ordinary affairs of life. Excitable states alternated with periods of depression. Incoördination was marked, and tremor was characteristic. The gait and other muscular attempts were wavering and unsteady. Digestive disturbances were evidenced by the coated tongue, indigestion, flatulence, gastric atony and constipation, while the sallow complexion and the character of the feces made known the sluggishness of the liver. The heart was flabby, slowed and irregular, while the urine was decreased and showed a small amount of albumin. The patient complained continually of burning pains, probably due to a clogging in the glandular function of the skin. Sciatic pains were not prominent in this case, a belt-like pain across the abdomen being the usual reflex, neuralgic complaint.

Among the psychical symptoms, insomnia was of course marked. Irritability of temper, with hysterical outbreaks, was manifested under the slightest aggravation. One of her distressing symptoms was a perverted sense of taste and smell. Hallucinations of sight and hearing, with delusions both fixed and variable, were evident during a reduction of the drug.

Considering the age of the patient and her long-continued use of the drug, it was not considered safe to remove the opiate too abruptly. She was injecting 5-5 of a grain in 24 hours, it having been found impossible to reduce the amount lower than this at other institutions.

The opiate was gradually withdrawn entirely, during several months, and in this time and for some months after-

wards the treatment of the case was carried out in as rational a manner as possible, the endeavor being to aid excretion, to stimulate cell-function and regeneration as far as possible, to restore the normal constituents of the blood, and to increase nutrition.

In making an examination of the blood, I found great deficiency in hemoglobin and the number of red cells, which latter I found to be crenated and granular. As a result of this blood dyscrasia, the cells and tissues receive improper and insufficient nourishment, and oxygenation is lessened.

A thorough examination of the patient convinced me concerning the lines of treatment necessary for the case, these being hygienic, hydrotherapeutic, massage, electrical, dietetic and medicinal.

Among hygienic measures, sufficient exercise, together with abundance of fresh air, were of great value in rebuilding the system. Massage, together with hot and cold baths, salt rubs, etc., not only had a stimulating action on the circulation and the muscular system, but aided greatly in relieving the pain, increasing elimination and stimulating normal metabolism. Static electricity proved useful, both for its pain-relieving effect and for its stimulating action upon the vasomotor and spinal centers. The diet was carefully guarded, only the most nutritious and easily digestible and assimilable foods being administered. The aim of the medicinal treatment was to produce thorough elimination through every channel, to aid digestion, increase nutrition, and thus build up the shattered nerve-centers. Iron, arsenic and strychnia, together with the mineral acids, were invaluable for their generally alterative, reconstructive and tonic effect, and their aid toward digestion. Diuretics were employed when necessary, caffein seeming to act admirably for this purpose. The intestinal canal was kept free by an occasional full dose of Epsom salts, and calomel. Digitalis regulated the heart and stimulated the flabby heart muscle.

The hypodermic syringe was entirely removed as soon as possible, the patient having a marked morbid desire for the prick of the needle. After the opiate had been entirely withdrawn, it was found necessary to administer a sedative of some kind. Sulphonal, trional, chloral, bromide and various other sedatives were useless, and produced undesirable symptoms, but cannabis indica was found to be of marked benefit, both as an anodyne and an hypnotic, when these were required.

Before closing this paper, I desire to discuss briefly the possible agencies at work in the production of the many neurotic and psychical symptoms invariably present. The opiate itself does not elicit such serious and characteristic symptoms. It seems to me that a secondary or auto-intoxication, arising out of arrested or abnormal metabolism, is the malefactor. It has been conclusively shown that these poisons of internal production have a marked tendency to affect the delicate structure and function of the neuron, detrimentally.

The most fruitful sources of these autotoxins is the gastro-intestinal canal. Clinical and laboratory experiments have isolated some of these poisons; intestinal ptomains and indican are foremost among these substances. The blood-current also contains leukomains, derived from the long-continued katabolic changes, and reabsorbed bile salts from the torpid liver.

In conclusion, therefore, experience has taught me that the most useful results in the treatment of drug addictions are obtained by the various methods and medicaments at our command for the production of thorough elimination of all excessive toxic agents, and by the employment of suitable remedies for increasing blood and cell nutrition, with, so far as possible, a restoration of the entire nervous system.

65 Washington Avenue.

CHLOROSIS.*

By WILLIAM APPELBE, M. D., C. M.,
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Chlorosis—A term meaning greenish-yellow, is applied to a condition in which the blood shows a more or less marked reduction of the hæmoglobin, while the red cells are not correspondingly reduced in number. With this condition of blood there is a clinical picture of pallor of the mucous surfaces, a greenish-yellow tint of the skin, which gives its name to the disease, and a marked rounding of the form or accumulation of fat, while the vital functions are below normal.

Ætiology—The ætiological factors producing this condition are most numerously and variously estimated and described by authors of text-books, clinicians and pathologists of greater or lesser repute, with the result that the real cause or causes remain still in obscurity. Much labor has been expended on the subject by eminent clinicians and pathologists who, while not arriving at any clear and definite decision, satisfactory to all, have opened the way for a clearer and a much better understanding of the condition, more accurate diagnosis and more rational means of treatment.

Virchow observed and taught that smallness of the heart, narrowness and thinness of the aorta, with irregularities in the origin of its branches, in chlorotics, proved the ætiology to be due to congenital deficiency of the vascular system; and as both vessels and blood are derived from the mesoblastic layer of the *embryo*, this tissue or fluid would be prone to degeneration.

The weakness of this hypothesis lies in the fact that chlorosis is curable in almost every case, uncomplicated by other independent lesions, while structural or anatomical lesions are not so materially influenced by medical means.

*Read before the Pathological Section of the Wayne County Medical Society.

Another theory advanced is that the generative organs are in a state of hypoplasia; and while this may be the case we can readily account for the condition as an effect and not a cause of chlorosis. Moreover in those cases in which the infantile state of the genitals persist througout life, chlorosis is seldom if ever observed. As chlorosis is found only in the female, and as males are subject to both of the above mentioned conditions, it is to my mind conclusive evidence that we must look for the origin of the condition elsewhere than in structural deficiency of either vascular or genital systems.

Age—Between the fourteenth and the twenty-fourth years of life chlorosis is most frequently seen, but it may be met with much earlier as well as much later, more especially in those cases in which early menstruation has appeared, as the flow may appear but once and be followed by chlorosis; after recovery under such conditions relapse is frequent.

Osler says: "In girls in whom the disease (chlorosis) appears in their teens, precocity and early, almost premature, appearance of the menses are likely to exist. When developing later they complain of scantiness of the flow and of dysmenorrhœa."

Heredity seems to have considerable influence in many cases, for, as Albutt has remarked, "How frequently mothers bring girls to the physician who give a history of one or more attacks at or about the same age."

The conviction is growing, and not without reason, that the intestinal tract is the seat of the origin of this disease or condition of blood. Whether the bowels be constipated or not, iron or salines have a decidedly beneficial effect, giving great

relief. And as only a minute quantity, if any, of the iron is absorbed, the remainder must be and is excreted by the intestine and produces its remote local action not only on the intestine but upon its contents. Salines act by removing much that is undesirable, not only from the bowel but also from the blood, and either iron or salines administered alone will produce improvement. Again, anæmia as seen in the male at or about the time of puberty, when an unusual demand is made upon the blood and the blood-making organs, may be taken as a type of that condition which is known as chlorosis in the female. As this condition is directly traceable to disorders of the ailimentary tract, we are led to the conclusion that in the female also, where we regard puberty as establishing a dual function, viz,—reproduction and excretion—any interference with the proper assimilation of the hæmoglobin-forming elements of the food on the one hand and interference with the excretory function of the intestine on the other will have a more profound and deleterious influence on the organism; and not only will the blood be lacking in its constituents but it will be loaded with such substances as skatoxyl, indoxyl, etc., derived from proteid putrescence in the small intestine. The effects of this condition of the blood on the vaso-motor nervous mechanism has led many observers to conclude that chlorosis is due to disturbances of or disease of this part of the nervous system, which is no doubt markedly disposed to disease at this age, just as is the motor system in earlier years, noted in chorea.

Sir Andrew Clarke used the term "fæcal anæmia" as a synonym for chlorosis because of the clinical symptoms—constipation (no doubt in many cases the result of that neglect peculiar to young girls of resisting the calls of nature until the constipated habit becomes established), the tongue coated at the base and marked with indentations of the teeth, the organ large and flabby, breath disagreeable (described as fæcal), and pains in the sides, referred to the splenic and hepatic flexures. Meinhert, of Dresden, accuses the corset of being the cause of chlorosis by producing splanchnoptosis with gastric dilatation. Murri, of Bologna, attributes the disease to cold, and in his paper speaks of "Winter Chlorosis."

Clement, of Paris, names infection as the origin and describes splenic enlargement, with a tendency to phlebitis and thrombosis, as prominent symptoms.

These are all no doubt exciting or contributory or perhaps secondary causes of chlorisis and they may favor its development, but the corset is most universally worn, while chlorosis is not the usual result. Gastric dilatation, with descent of the greater curvature, is common in all anaemic conditions and not more so in chlorosis. Cold as an exciting cause may be accepted, but other factors must of necessity be present, for we have all seen the abuses of this agent by young girls at this period without producing chlorosis; and again, the aggravation of the disease in winter may be readily explained by the conduct of chlorotics at this season, with their subnormal temperature and indolent habits—keeping, as they almost invariably do, near the fire and in close, hot rooms, wearing heavy clothing—the excretory functions are suppressed and the blood must suffer in consequence. As to Clement's infective origin of the disease, accompanied by splenic enlargement, we may conclude that such a condition would be more of a toxaemia or real septicaemia than a true chlorosis, an an enlarged spleen is not commonly seen in chlorosis. Hereditary organic quality, with functional derangement of the small intestine, seems to be the most rational view to hold as to the cause of the disease, and the condition of

the blood must be regarded as secondary to a general auto-intoxication.

Symptoms—Vascular.—The pulse is usually rapid and of low tension, the temperature subnormal. Venous murmurs are heard over the base of the heart and the great veins of the neck. These are variously explained, but usually disappear on improvement in the quality of the blood. The examination of the blood is of the first importance.

Skin.—The face has the peculiar yellow or greenish-yellow tint; the mucous surfaces are found pallid, as well as the ocular conjunctiva and the superficial tissues show an increase in adipose tissue. On directing the patient to glance upward at the ceiling, the skin of the forehead lacks the customary transverse wrinkling and instead the integumentary tissues are seen to be thickened. The retina is pallid, with a grayish, lustreless appearance, and the optic nerve is prone to inflammations. This is the converse of the condition seen in pernicious anaemias, where retinal hæmorrhages are frequent. The eyelids are found swollen, especially the lower lids, and in many cases the features become unrecognizable, especially in the morning. The lower extremities are swollen and œdematous, while the face lacks the usual furrowing and tends to become expressionless. A rough, doughy feel of the skin and enlarged thyroid are common symptoms.

Amenorrhœa is a common symptom, but not invariably present, while irregularities as to time and quantity of the flow are most pronounced. The uterus and ovaries are sometimes found imperfectly developed.

Urine.—Shows a marked deficiency. The quantity, in my experience, varies between twenty and forty ounces in the twenty-four hours in an individual case at different times. Pale in color, low specific gravity (sometimes 1.006, total quantity taken) and acid reaction. The solids are uniformly deficient, for urea is reduced to 25 or 50 per cent., while the phosphates are in excess and the chlorides, as in all anæmics, at times reduced. The pigments of hæmic origin are normal or reduced, never in excess, and prove that we are dealing with a blood deficiency, and not one of blood destruction as in malaria, pernicious anæmia, etc. Da Costa says: "The urine is of light color in the confirmed stage, pale, and of a special green tint if the patient remains in bed, but highly colored on getting up and about again; it shows urobilin and urohæmatin in considerable quantity."

With the symptoms as outlined above, or any number of them, together with the blood-picture to be described, the diagnosis of chlorosis might be made, but as Da Costa says: "There is no blood-picture peculiar to this condition, since changes precisely similar to those seen in many a typical case of chlorosis are often observed in the secondary anæmias, especially those dependent on such factors as syphilis, tuberculosis, malignant disease, and chronic normal lesions. With the blood findings and the clinical signs carefully considered, the diagnosis is in many cases extremely difficult and the secondary anæmias are frequently present."

Dangers.—The dangers during the attack are chiefly those of any pronounced anæmia, such as cardiac dilatation, due probably to a deficient supply of blood, together with toxic substances in the impoverished blood and the peculiar tendency of fatty degeneration of the viscera, as well as of the tunica intima of the arteries.

Thrombosis.—The blood in chlorosis clots with extreme rapidity and requires but an exciting cause to produce thrombosis, the blood being below par.

Gastric Ulcer.—Complications—*Nervous debility, cardiac dilatation, thrombosis* (both femoral and cerebral), *gastric* dis-

turbances, as *ulcer*, *neuralgia* and *dilatation* with downward displacement.

Myxœdema.—Here I would call attention to the similarity existing between acquired myxœdema of a mild type, and chlorosis. In both we have rapid pulse, with low tension, subnormal temperature, pallor of the mucous membranes, swelling of the face, especially the eyelids and skin of the forehead, swelling of the lower extremities, enlargement of the body by superficial increase, yellow tint of the skin, patient always cold, constipation, lassitude of the body and mind, shortness of breath, muscular weakness, headache, decreased excretion, urine decreased, with lowered sp. g., decreased urea (less than 50 per cent. of normal) and a great tendency to tuberculosis of the lungs.

Sequelæ.—Tagge says: "Chlorosis is often the starting-point of phthisis, hysteria, chronic chorea, gastric ulcer and exophthalmic goitre, and the disease is especially apt to recur."

The Blood in Chlorosis.—Pale in color, coagulation usually rapid. S. g. decreased. Hæmoglobin gives low color-index and is relatively decreased, the erythrocytes not showing a corresponding deficiency. Erythrocytes are moderately reduced, ordinarily to about 4,000,000 per ccm., but counts of three and even less are common in neglected cases.

Erythroblasts are very rare, and if present those of the normoblastic type predominate. There is a general decrease in the average size of the red cells. In severe cases microcytosis may be marked. Poikilocytes not numerous except in severe cases.

Leucocytes.—Normal number, but relative lymphocytosis is common; eosinophiles are notably decreased. Plaques increased in number; the stained film shows a distinctive feature in the large number of undersized, pale, erythrocytes. A large number are as a rule affected, and give the impression of a general decrease in size and number, except in those severe cases associated with marked oligocythæmia. Striking examples of microcytosis, however, as seen in pernicious anæmia, are not seen in chlorosis. The cells react feebly to plasma stains, and so we get the appearance of hoops or rings where the hæmoglobin of the periphery takes up the stain; some are lacking even in this and appear decolorized throughout.

Stroma degeneration is seen occasionally and the deformities of shape are also observed in severe cases, but only in the smaller erythrocytes. Occasionally, where both cells and hæmoglobin are reduced, the poikilocytosis becomes marked, but nucleated cells are rare.

Leucocytosis is the signal for complications.

Polynuclear neutrophiles are governed by the lymphocytes and high counts of one denote low counts of the other, and vice versa. Eosinophiles are reduced both absolutely and relatively. Plaques are most numerous in blood which clots most readily, but are generally increased.

Differential diagnosis.—

Pernicious Anæmia	Chlorosis
Hæmoglobin index very high, corpuscular loss extreme	The reverse
Poikilocytes common	Rare
Microcytes common	Rare
Erythroblasts common	Rare
Seen in males	Always in females

Someone has said that chlorosis is as compatible with the male sex as is pregnancy. The skin in pernicious anæmia is more lemon-yellow than in chlorosis, where it is greenish-yellow. Retinal hæmorrhages, or in fact any hæmorrhages, are much more frequent in pernicious anæmia, where they become almost uncontrollable, the blood refusing to clot.

Leukæmia.—Here the white cells are so enormously increased and the red cells so decreased as to be equal, in some

cases. The enlargement of the spleen and lymph glands is a marked feature.

Pseudo-Leukæmia. — (Hodgkin's Disease.) Here we have no leucocytosis as in leukæmia, and the splenic and lymphatic enlargement serve to distinguish it from almost any other disease.

Secondary anæmias.—It is here that the clinician finds his greatest difficulty. The changes in the blood are not sufficiently constant and the differences are too slight to be trustworthy or used clinically. Theoretically the red cells and hæmoglobin bear a definite relation to each other, but we have what has been aptly termed "the chlorotic type of blood," common to the secondary anæmias. Physical signs and symptoms must, then, be depended on for a differential diagnosis, which in cases of obscure origin is extremely difficult.

57 Fort Street west.

ONLY A DROP OF PUS.

By FRANCIS J. W. MAGUIRE, B. S., M. D.

The young man who enters the physician's office with the history that he has "only a little touch of a dose," as he slangily expresses himself, is to be more pitied than blamed for his ignorance, as this class of men measure the extent of their malady by the so-called drop of discharge. This drop has several sources, viz: folliculitis, peri-urethral phlegmon, Cowperitis, cystitis or stricture, the removal of which is the only permanent cure for the so-called "morning drop."

Now it is my intention to base my statistics on seventy-nine of these cases which I have had under treatment and observation during the past few years, all of which came to me with about the following story: I was treated by Dr. X—, druggist Jones, or had a prescription from a friend"—injections being the prevailing remedy among these. Another class were those who would have a return of the discharge each time they had sexual intercourse, and who ignorantly thought it was a fresh infection.

Of these seventy-nine cases of chronic urethritis I found that sixty per cent. of them were caused from stricture of the membranous portion of the urethra. Immediately behind the ulceration of the stricture I found a peri-urethral phlegmon. This lesion I found a frequent complication of chronic urethritis.

Where there was a morning discharge, it was caused by an inflammation of the cellular tissue surrounding the urethra, and, according to the latest authors, is due to the following causes:

(1) Rupture of the mucous membrane, with resulting peri-urethral infection.

(2) Rupture of the inflamed and infected follicles with a similar result.

(3 Infection conveyed to the cellular tissue by means of the lymphatics or by migration of pyogenic microbes.

(4) Rupture and extravasation, dilated and ulcerated urethra behind the stricture.

Of these subdivisions, I found the most common cause was ulceration and stricture, which were usually coupled together, the former of which could easily be diagnosed by the Valentine electric lamp, and the latter by the time-honored bulbous sound.

While many diseases have become less terrifying by the discoveries of the abortive treatment, very little progress has been made to eliminate the complications which seem to accompany the morning drop in seventy-five per cent. of these cases. The enormous mortality among women due to inflammation of the pelvis which can be traced to these varied complications is simply astounding, and the numbers of these who thereby lose their

health can never be known at all. It would be unjust to attribute all the blame for this deplorable condition of affairs to carelessness on the part of the profession, but without doubt a large amount of the responsibility should fall on physicians; either they are unskilled in the treatment of these diseases or are criminally careless in declaring their patients cured when in reality they are so far from cured that should they marry, which happens very frequently, they immediately infect their brides. Certainly in such cases as these —and they are dreadfully common—the physician is the one to blame. All prominent modern surgeons agree that the main cause of suppurative and destructive inflammation of the female pelvic organs is puerperal sepsis and gonorrhœa, caused no doubt from the supposedly cured husband and man with this "only a drop of pus" which they treat with so much indifference and carelessness. Undoubtedly there is not a physician present who cannot recall a case in his own personal practice in which some innocent wife has been infected with this disease by an ignorant or careless husband. In many cases these men have been told by their doctors that they were cured beyond the danger of transmitting the disease to others. This has been translated into a license to marry. The physician might not have imagined when he discharged his patient that this "only a drop of pus" as his patient had termed it, had a source lying dormant ready to spring into activity upon the occurrence of venereal excitement.

We must keep one thing in mind, "that the chief power of the gonococcus for harm lies in the lasting vitality of the germ after apparent cure has been effected. This explains the fact that an apparently healthy subject of chronic or latent gonorrhœa might infect his hitherto uninfected wife and become infected from her through the gonococci passing through the new culture growth of the wife and becoming virulent again for the husband. We could now understand why the gonococcus, after years of apparent cure, might regain its full virulence. This germ might be found in the uterus and the tubes long after it had disappeared from the vagina. The crypts of the uterine mucosa furnish a ready resting place for the gonococcus. It might for long periods remain concealed in a quiescent state, a menace to health and to life itself."—(Dudley's Gynæcology, second edition.)

From the best obtainable statistics, there are four hundred thousand women in this country leading lives of prostitution, and it is safe to say that the majority of them contracted gonorrhœa and are now in the field ready to spread that virulent poison among the many victims with whom they will come in contact within a short space of time. Now to my mind strict quarantining of these women would be more valuable to public health than the quarantining of many of our contagious diseases which in the end usually do not prove as fatal.

There are in the United States, according to the last census, more than sixty thousand blind persons. We are certainly not exaggerating in saying that fifteen per cent. of those unfortunates owe their condition to the so-called "only a drop of pus."

After centuries of carelessness on the part of health authorities on this subject, there has been a farcical attempt made by some cities to establish a prophylaxis by having the inmates of our houses of prostitution examined and furnished certificates every fifteen days. Evidently this work in our city has fallen into the hands of careless and unscrupulous men who have issued certificates where the prostitutes have been actually burdened down with several venereal diseases, as it has been the writer's experience to see

many cases contracted from these women armed with these atrocious certificates claiming that they were free from venereal disease.

Time will not permit me to go into a detailed history of the terrible results which will continue to be visited upon each succeeding generation if measures are not taken to legislate more intelligently on our social evil. It is true that our legislators are harshly criticised and even condemned for the so-called licensing of houses of ill-fame, but no amount of criticism, however well meant, will do anything with the social evil, and it remains with the doctors of this country who, more than any others, see the terrible results of want of proper legislation on this subject, to raise their voices and use their influence at all times and have common sense laws passed that will put these places and the inhabitants of these places under the strictest kind of examinations. I realize that already some attempt has been made along these lines, but putting a law upon the statute books is not enough for it; the strict enforcement of that law to the letter is what is needed.

It is not my province to preach, so I will neither extol nor condemn the social evil. That it does exist I regret. Other countries realize the consequence of shutting their eyes and allowing the youth of the land to become diseased and weakened, and are now adopting the most stringent laws to compel the inmates of houses of prostitution to be thoroughly examined every week, and the result only proves the arguments I have made to you. Such a law will be an untold blessing to this and all succeeding generations and I know will do more than anything else to end the story of "only a drop of pus."

In taking up the treatment of this very difficult complication, the writer wishes merely to state that he has discovered no specific, but has found the most satisfactory results in carefully carrying out the following:

First, analyze the urine; second, place the patient on some genito-urine sedative. The diet is most important. All acid foods are to be avoided; violent exercise and sexual excitement tend greatly to irritate these cases; third, have the patient urinate, then irrigate the urethra by means of the Valentine irrigator, with a one to four thousand solution of permanganate of potash; fourth, examine the urethra for stricture by means of the bulbous sound; fifth, insert the Valentine lamp and examine for the peri-urethral phlegmon, which is usually found behind the stricture in the membranous urethra; sixth, where I find the stricture I begin gradual dilatation with the Kollmann dilator (Dresden, Germany),—which instrument, by the way, gives entire satisfaction. There can be no rule laid down for the using of this dilator; only experience and good judgment can regulate its use. Great care must be taken not to lacerate the urethra by too rapid dilatation.

In cases where the urethra is very sensitive, I use a one per cent. solution of hydrochlorate of cocaine, and where the stricture is very narrow and shows a tendency to hemorrhage I have found that very advantageous use can be made of the blanching and hemostatic action of adrenalin, by putting a few drops of a solution of one to a thousand to the entrance of the stricture; seventh, irrigate the urethra again after dilating, and by the aid of the Valentine lamp locate the peri-urethral patch and apply one or two drops of a solution of nitrate of silver five grains to the ounce.

This treatment should be repeated twice or three times a week, gradually lengthening the time between treatments, care being taken not to cause any complication from too much stimulation

whereby new avenues for infection might be created and ultimately end in bulbo-orchitis or gonorrhœal rheumatism. These cases can only be discharged cured, according to some authors, when the microscopic examination of the urine reveals the absence of the gonococci or other infection.

Of these seventy-nine cases I diagnosed the cause of the drop of pus in sixty-five cases was stricture and peri-urethral phlegmon, some of which I have discharged, cured. The balance I diagnosed as Cowperitis, folliculitis, cystitis and fields of infection in which the sores could not be located. Treatment of the last cases mentioned was not satisfactory.

778 Jefferson Avenue, Detroit.

SOMETHING ABOUT RADIUM.

It is no new thing for the scientific world to be indebted to France for a discovery of some new form of activity. The names of Ampere and Becquerel are sufficiently monumental to stand as guide-posts on the path of science. Now to these is to be added the name of Mme. Curie, who, although not a Frenchwoman by birth, is one by residence. Following the discovery by Becquerel, she and her husband, M. P. Curie, succeeded in detecting and isolating the new substance, radium. Becquerel's discovery of the property of matter known as radio-activity led almost immediately to research along the lines opened by his genius, and the work of the Curies was one of the first discoveries, both in point of time and importance.

Following Becquerel's work with uranium, Mme. Curie noted the fact that some specimens of pitchblende, one of the minerals from which uranium is obtained, were more radio-active than might have been expected from the quantity of uranium present in them—in fact, more radio-active than uranium itself—and began forthwith the work of finding what the new substance was that should account for this condition. Incidentally in her work she found one substance, polonium, named for the discoverer's native land, which was one hundred times as energetic as uranium. Later, while examining the salts of barium from the same mineral, she, together with M. Curie and M. Bémont, found and isolated another extremely active element, which we now know as radium. It is so similar to barium in its general reactions that if it were not for its great radio-activity it would probably never have been noted.

Of polonium it may be said that its nature can scarcely be said to be new. Experiments show that it contains a great deal of bismuth and that it is highly radio-active. Its spectrum shows only the lines of bismuth and of some known impurities.

Of radium, however, something more is known. Attracted by the surprising radio-activity of the salt, the investigators pursued their work with vigor. Finally they obtained a minute quantity of a preparation which was nine hundred times as active as uranium in imparting conductivity to the air. Larger and purer specimens were obtained, until Mme. Curie secured some of radium chloride that possessed five thousand and even fifty thousand times the radio-activity of the original salt. At length a specimen was secured which was thought to be sufficiently pure to be taken for the purpose of determining the atomic weight of radium, which she set down at 225 times that of hydrogen. She also determined that the general chemical characters of radium are those of a member of the same group of elements as calcium, the metal

present in builders' lime, made in large quantities from roasted chalk and other limestones.

There are, however, many and wonderful differences between radium and calcium. To begin with, radium salts are self-luminous. Secondly, when a radium salt is brought near a cardboard screen coated on one side with the platino-cyanide of barium, the platino-cyanide glows with a green light as long as the radium salt is near it, but no longer. Thirdly, the salts of radium impart a remarkable phosphorescence to Sidot's hexagonal blende (sulphide of zinc), and this phosphorescence persists for a short time after the exciting cause has been removed. Diamonds brought into the presence of radium nitrate glow with a pale, greenish light, as they do under the influence of kathodic bombardment in a radiant matter tube.

Much that is erroneous and misleading has been written in the daily press concerning the property of radium to "cause the blind the see." It is true that when radium salts, or mixtures rich in the salts, are brought close to the eyes or the temples, a peculiar sensation of light is experienced by the subject. But no claim has ever been made by those best in a position to know that radium is a cure for blindness. Indeed, on account of the extreme radio-activity of the substance, it is dangerous when brought into contact with the skin, causing irritation and finally slow-healing ulcers. Any substance containing radium has this property to some extent, and one observer who carried a few grains of a barium salt, strongly impregnated with radium, in his waistcoat pocket for a time was afflicted with a sore on his body which took a month to heal, although the radio-active substance had been packed in a glass tube in a cardboard box, wrapped in paper, and was separated from his body by several thicknesses of cloth.

The most recent discovery of the properties of radium is also the most wonderful. For this we are indebted to M Curie and M. Laborde. In general it may be stated that every body on the earth's surface tends to assume the same temperature as that of its surroundings. This is of course the basis of the use of the clinical thermometer. But radium appears to be an exception to this rule, for the two men mentioned, by placing one gram of a sample of radiferous barium chloride, containing about one-sixth of its weight of radium chloride, in a small bull with a thermo-electric couple (to measure the temperature) found that radium remained constantly hotter than the surrounding air by one and one-half degrees C. It has even been calculated that the two grains or so of radium chloride used in this and other experiments give off enough heat every hour to raise the temperature of their own weight of water from 0° C. to 84° C., not far from the boiling-point of water (100° C.) And when nearly pure radium salts are used it is calculated that in each hour the amount of heat evolved by an atomic proportion of radium is not very much less than that produced by burning an atomic portion of hydrogen.

A remarkable feature of this property is that radium apparently suffers no less in this giving out of heat. When hydrogen has evolved its heat units it changes, with the oxygen consumed (when the oxy-hydrogen flame is used) into water, and is then incapable of yielding further similar effects. But radium appears to be able to evolve as much heat in the second hour of its activity as it does in the first and so on for a period that is at least a long one, though it must be remembered that work with radium is still, so to speak, in its infancy. It is estimated that a portion of radium of 225 grams (approximately half a pound) would be able to give out enough heat in a year to rais

nearly 8,000 times its own weight of water from the freezing-point to the boiling-point.

Various theories have been adduced to account for these properties of radium. It was at first believed that the power of emitting radiations which would act on photographic plates for years without any dimunition in intensity might be due to chemical changes among its atoms; but the facts cited above would seem to overturn this theory, and others must be advanced. Sir William Crookes has suggested that radio-active bodies of high atomic weight may have the power of drawing upon the store of energy locked up in the molecular motions of quiescent air; Prof. J. J. Thompson suggests that the atom of radium is not stable under all conditions and that among the large number of atoms contained in radium there are a few which are in the condition in which stability ceases and which pass into other configurations, giving out as they do so a large quantity of energy.

Prof. E. Rutherford, of Montreal, a great authority on the subject of the emanations of energy, finds that radiations of three distinct types may be distinguished in the emanations of radium. First there are the alpha-rays, which may be deflected under the influence only of a very strong magnet and then only to a small extent, and which are readily absorbed by matter. Then the beta-rays, which are readily deflected by magnets and less readily absorbed by matter. Finally, some very penetrating rays, which are not deflected by magnets, and which are called the gamma-rays. By far the greater part of the energy of permanently radio-active bodies is in the form of the alpha-rays and it has been determined that they carry positive charges of electricity, and therefore consist of particles, and also that they are the cause of the scintillations produced by radium. The beta-rays, on the other hand, are found to consist of minute, negatively charged particles, similar in all respects to the kathode rays, and estimated to move, when unimpeded, with a velocity that is not less than two-thirds that of light itself. In brief, the beta-rays are the electrons of the Crookes' tube.

Leaving aside the remarkable character of this discovery from a scientific standpoint, one may speculate cautiously on the results of the discovery to the world at large. Modern scientific work is tending closely along the lines of the manifestations of great and hitherto undiscovered forms of energy. Crookes, Roentgen, Tesla, Tripler, Marconi and the Curies are among the names that will go down to illuminate the page of history that records the most brilliant period of discovery of any time. When radium is made in larger quantities, when it can be made cheaply, the future will have at its command a source of energy undreamed of hitherto and susceptible of being made the faithful servant of man.

The Secretary of the Interior has issued some new rules with regard to procedure at Hot Springs, Ark., their object being to regulate the actions of a number of individuals who make a pretense of practicing medicine at the springs, without being qualified as practitioners. The new rules require that all physicians prescribing the water from the hot springs shall be registered; a board of physicians has been appointed to pass upon the qualifications of applicants for licenses. A large number of "quacks" have made their way to the Springs recently, and their presence has been the cause of many complaints to the Department of the Interior. The board appointed consists of Lt.-Col. Blair D. Taylor, U. S. A., in charge of the Army and Navy hospital at Hot Springs; Dr. G. C. Greenway and Dr. C. Travis Brennen.

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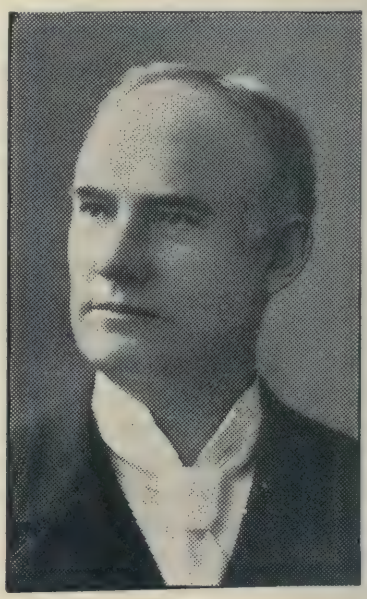
IN MEMORIAM

Donald Maclean—1839-1903

Donald Maclean, at one time perhaps the best known surgeon of Michigan, died on July 24 last. Although ailing for more than a year, his final sickness was of a short duration of only forty-eight hours; an acute gastro-enteritis finished his life, a life full of labor and success, but not free from disappointments. Donald Maclean was born in Seymour, Ontario, December 4, 1839, of Scottish parentage, his father and mother coming from the great Maclean and Campbell clans respectively. During all his life he was proud of his Scottish descent; his medical education was obtained mainly in Scotland, and his favorite poet was Burns, whose poems he quoted in nearly every one of his eloquent addresses and lectures; he was a true Highlander; a warm friend and an irreconcilable foe.

At the age of six years he went to Edinburgh with his father, where he attended school for six years. Then returning to Canada, he went to the schools of Coburg and Belleville. In 1855 he entered Queens College at Kingston, Ontario, returned in 1858 to Edinburgh for his medical studies, and received the degree of M. B. C. M. from the Royal College of Surgeons, Edinburgh, in 1862. During the Civil war he returned to America, entered the United States Army service as assistant surgeon and acted in this capacity for one year in the hospitals at St. Louis and Louisville. During this time he commanded the attention of his



DR. DONALD MACLEAN.

superior officers by his dexterous handling of surgical cases. There he met Dr. D. O. Farrand, of Detroit and—as Dr. Maclean himself often related—it was a quickly and successfully executed ligature of the axillary artery, which impressed Dr. Farrand so that later on he proposed the young surgeon for the chair of Surgery at the University of Michigan. In 1864 Dr. Maclean was made professor of Surgery at Queens University, Kingston, Ontario, where he gained a great reputation as a surgeon and a writer. During this period, the young professor of Surgery at the age of only 27 years edited the surgical works of his teacher, Syme (J. B. Lippincott, Philadelphia, 1866). In 1869 Maclean again went to

Edinburgh and returned in 1872 to accept the professorship of surgery at the University of Michigan. The period at Ann Arbor from 1872 to 1889 was the most fruitful of his life: his quick diagnosis, his wonderful dexterity in operating, his charitable feeling for human suffering made him known far over the limits of Michigan. There is hardly a village in our large state in which Donald Maclean has not performed a great operation. It was the time when surgeons were few, when laparotomies were looked upon as wonderful achievements. In 1885, for example, Maclean did in one year 18 ovariotomies, with only three deaths (The Physician and Surgeon, 1885), a remarkable record for that time.

In 1889 he resigned his position at the University of Michigan, because his idea of removing the clinical department of the university to the Metropolis of Michigan, to Detroit, where he would find a larger field for clinical instruction, was most bitterly opposed by the board of regents. From 1889 until his death he resided and practiced in Detroit. He was honored as a prominent citizen and successful surgeon in various ways, being elected president of the Michigan State Medical Society in 1884, of the Detroit Medical and Library Association in 1887, and in 1894 he received the highest honorary position the profession of the United States can confer upon its members, the presidency of the American Medical Association. In the Spanish American war Donald Maclean was commissioned major-surgeon and appointed chief of division-hospital at Old Point Comfort, Va.

Donald Maclean was a quick, bold surgeon, an impressive teacher, a most eloquent speaker and a powerful writer. His contributions to medical literature were numerous: besides the already mentioned American Edition of Syme's works, his Clinical Lectures were a main attraction to the readers of the Physician and Surgeon for many years. Other works of his pen are: Memoranda, Surgical and Pathological (New York State Medical Society, 1893), A Few Living Issues Affecting the History of Medicine (President's Address American Medical Association), James Syme, the Surgeon (Medical Age, 1893), Treatment of Fractures, etc. Every Detroiter enjoyed his frequent open letters to the daily papers chiefly concerning medical topics, in which the general public was interested. The peculiar, forceful style, the sarcastic criticism, and the poetical quotations were characteristics of his pen.

Dr. Maclean was very charitable, not only to his patients, but also to his colleagues. He was very fond of young physicians, and helped a good many of them in the struggle for existence during the first years of their practice. He was proud of the successes of his former pupils, among them T. J. Sullivan of Chicago, the late W. P. Munn of Denver, W. J. Mayo of Rochester, his brothers A. J. and A. M. Maclean of Salt Lake City, and many prominent medical men of Detroit might be mentioned.

Donald Maclean's death leaves a vacancy hard to fill; we shall miss his friendly manners, his witty remarks, his forceful discussion and his experienced advice. His memory will live with and after us!

THE INCREASING COST OF MEDICAL EDUCATION.

Rush Medical College, now the medical department of the University of Chicago, is to have an endowment of eight or ten millions of dollars, all to be given by John D. Rockefeller, the Standard Oil magnate, except one million raised in Chicago by friends of medical education. The endowment will strengthen materially the already leading position of Chicago

as a medical center, and stimulate higher medical education all over the country. The small medical college, run in the interests of its staff of professors, has had its day; for, with the gradual raising of the standard of requirements to practice taking place in every state, students will of necessity seek the schools which, by reason of excellence of teaching staff, laboratories and clinical material best fit them for passing the more rigid examinations. The increased cost of medical education which will eventually follow, by reason of the necessity of living in the larger cities, will perhaps deter some from entering an already overcrowded profession. If so, the profession at large will be the gainer, and men who are well equipped may obtain more nearly the financial returns to which long years of study and a life of toil entitle them. The cost of furnishing an education in medicine adequate to the age in which we live is steadily increasing. Rush wants ten millions to satisfy the needs of an up-to-date school; the College of Physicians and surgeons (Columbia) wants a million endowment to meet her annual deficit; and so on. All over the country the cry goes up for more money for improvement of plant and increase of teaching force to meet the requirements of scientific research. Hence it follows that the cost to the student must also increase, even without the direct raising of fees. The lengthening of the course, the increase in laboratory work, which always entails expense, the necessity for better preliminary training, all unite to make the road harder for the prospective physician to travel.

The new Michigan law, which is the equal and in some respects the superior of any State law, prescribes as a minimum standard of preliminary education a high school diploma, or its equivalent by examination, supplemented by graduation from a reputable medical school requiring a four years' course of at least seven months in each year. The contrast between these essentials for admission to the examination for license to practice, and the simple registration of any kind of a diploma, allowed a few years ago, is strikingly illustrative of medical progress. The ranks of the barber, machinist and farm-hand have been sorely depleted in the past to make poor doctors, struggling for a living in an already over-crowded profession, in which but few achieve financial success; for the average medical income in this country is below fifteen hundred dollars a year.

The marvelous thing, under old conditions, is not that quackery exists, but that there is comparatively so little of it.

MEDICAL EDUCATION.

Dr. Henry M. Hurd, of Johns Hopkins Hospital, well known in Michigan through his former connection with one of our state institutions, in an admirable address before the students and alumni of the Yale Medical School on June 23, 1903, spoke in part as follows:

It is apparent that the present requirements for medical education have become so expensive and exacting that schools which have hitherto been maintained as commercial ventures and for the private gain of their owners can no longer be profitable, if they honestly seek to do their duty towards the student. Expensive laboratory courses are required in histology, embryology, anatomy, physiology, bacteriology, pathology, clinical microscopy, pharmacology and physiological chemistry. They necessitate much apparatus, many salaried instructors who are precluded by their duties from adding to their income by private practice, and a limitation in the size of the class to permit of personal work. Former methods of medical instruction dealt with students en masse; present methods must consider individuals, and the unit of in-

struction becomes one person instead of five score. If this altered educational condition is to be honestly met by a school which depends upon its fees for its support, and to the credit of many schools it should be said that they are making the most praiseworthy efforts to meet the requirements, it means a loss of income and an ultimate extinction of the school. With many of them, in fact, the end is not far off. They already suffer from Falstaff's incurable disease, "consumption of the purse." On the other hand, if the situation is not fully realized and frankly met, we must be prepared to see the commercial school retaining its profits by furnishing insufficient medical instruction and an inadequate training. The medical man is thus fitted, as in the past, to become a practitioner rather than a student and a teacher. To modify a phrase used by another, "Such schools can do something for learners and but little for learning;" in other words, they can help the doctor, but not the science of medicine.

The present situation then, demands that schools connected with universities shall perceive the needs of the student and protect him from imposition by affording him instruction of a high standard. The working of the law of supply and demand, it is universally agreed, is no longer adequate to supply the higher education. It must be endowed or furnished by the state. Individual enterprise and initiative can no longer be depended upon to teach astronomy, the classics, higher mathematics or any other than technical or purely bread-and-butter branches. Medical instruction cannot be left to the initiative of the private school any more than can instruction in any other form of higher knowledge. If instruction in medicine is to form part of the university curriculum, the work should be done thoroughly and in such a manner as to add to the dignity of the science. I am aware that, mainly because of the imperfect preliminary education required for admission to the study of medicine, there has always been a query in the minds of university authorities as to the status of medical science and its claims to be considered a liberal study. The medical student at a university was formerly far from being a matter of pride to his alma mater. His relation to the royal family of letters was apparently a morganatic one. He did not appear on public occasions, was very little in evidence on Commencement day, and generally passed without much flourish of trumpets from academic halls to the seclusion of private life. Whatever medical science may have once been in comparison with other sciences, I have no hesitation in saying that now it is the peer of any. Although only the child of the past half century, it can boast of a brilliant series of discoveries. Compare the knowledge which has been acquired of the causation of malaria, yellow fever, tuberculosis, the assured benefits of the diphtheria antitoxin, Haffkine's plague vaccination, Pasteur's anti-rabic inoculation, and the like, with the achievements in any other branch of science. Think of the mental training required to settle the problems of immunity, to investigate questions of bodily metabolism, to know the true action of remedies, and to discover the law of diseases and their mode of cure. Physiology, pathology, hygiene, practical medicine, psychiatry, these are all living branches of medicine which require the highest training which can be given to the human mind to fit it to solve the problems which they present. The medical man needs to know chemistry, biology and physics; he must be trained to use his mind, and to reason from obscure, often imperfectly known factors. He must be a diligent student of the laws of mind, and keen to observe mental phenomena. Above all, he must have a

training of the head and of the heart to fit him for the true exercise of his profession and to deal with problems of the highest importance to the welfare of mankind. Are not such studies worthy the attention of a university, and should not she feel the duty and responsibility of providing adequate teaching for them?

Too many medical men reason from case to case as did John Hunter and frequently these cases are imperfectly observed and inadequately interpreted. The physician needs rather a study of principles deduced from systematic and painstaking observations of the phenomena of disease and illuminated by scientific conceptions. Already anatomy, physiology, chemistry, bacteriology and pathology are firmly founded upon the scientific method. The practice of medicine and of surgery, pharmacology, food dynamics and bodily metabolism must be similarly based upon scientific deductions. The range of observation required must be wide and the mass of accumulated facts to be gathered for ultimate study must be enormously large. The task of interpreting such observed phenomena calls for the widest training of the human faculty, and where else can this training be secured except in conection with studies of the broadest and most liberalizing character? From every point of view the intellectual aspect of medicine is the most important. To men who have been trained by university studies for research we must look for the future development of medicine. The training of the medical man has been narrow in the past; in future he must draw his inspiration from centers of learning and receive stimulation from his intellectual peers. A lack of thoroughness is thought by those who are familiar with the educational and industrial development of the world to be a characteristic of the American people. We grasp after results but are not willing to lay a broad foundation of preliminary education. In no profession has this lack of thoroughness wrought so much evil as in the study of medicine.

Nothing, in my judgment, is so stimulating to the student as the possibility of applying scientific knowledge to daily use. I cannot speak so positively of other sciences, but I can assert that in the history of medicine it has been found that he who makes the most fruitful discovery is the one who has approached the problem which he attempted to solve through the avenue of practical work. Men who sit down in the privacy of their chambers to make discoveries lack the incentive to produce practical results which comes from actual contact with the outside world and with the hard-and-fast conditions of nature. Hence, whenever I hear complaints on the part of busy practitioners or teachers of medicine that time is absorbed by routine work, which in their judgment might be much more profitably spent in research work, I do not always lend a consenting ear to the complaint. I have known many laboratories where teaching was not required which failed to do the work for which they were established. I have known many other laboratories, seemingly overwhelmed by routine work, in which the daily discharge of practical duties led to prolonged and life-giving discoveries. I would say in passing that it seems to me that under the endowment of research work made by Andrew Carnegie at Washington, the decision not to build a laboratory for special research, but to seek out research workers among practical students in the various technical and professional laboratories of the country, is eminently wise and philosophical and well calculated to bring larger returns than would be possible in a single laboratory divorced from the everyday practical pursuits of a technical school or university.

For this reason at least, students who are developed by the smaller colleges are

frequently to be congratulated. They become self-reliant, they learn to meet difficulties, they study for love of knowledge and their enforced contact with nature stimulates the scientific sense and makes them productive workers. I have little sympathy, too, with the study of problems which have no practical value and are mere intellectual gymnastics.

It is not those who have had the most abundant leisure or the best facilities for study who have accomplished the most. Take the historian Parkman, with his feeble health, his impaired eyesight and his general state of nervous exhaustion, which often permitted no more than five minutes of effective labor each day, and consider how much he accomplished by perseverance and by concentration of purpose and effort. Take Pasteur, not even a physician, and yet wrestling mightily and effectively with the problems of disease, handicapped by poverty, paralysis and inadequate laboratory facilities. Nor do such men belong wholly to the past. All students may draw inspiration and learn humility from a teacher of chemistry at a western university, who deprived wholly of sight by a cruel accident has had the resolution and fortitude to continue his work as a teacher and investigator, and who has attained scientific results highly creditable to himself and to the institution with which he is connected. The search after scientific truth has the advantage that it does not depend upon externals but rather upon the intellectual force of the individual; not upon the outward man, but the indwelling spirit.

THE NOTTINGHAM MEDICAL ACT.

Believing that every practitioner who has an intelligent interest in his profession should be well acquainted with medical conditions that affect him, we publish herewith the Nottingham Medical Act, Act No. 353, Laws of 1903, amending Act No. 237, Laws of 1899:

An act to amend section one, three and seven of act number two hundred and thirty-seven of the public acts of eighteen hundred and ninety-nine, entitled "An act to provide for the examination, regulation, licensing and registration of physicians and surgeons, and for the punishment of offenders against this act, and to repeal acts and parts of acts in conflict therewith."

The People of the State of Michigan enact:

Section 1. Sections one, three and seven of act number two hundred and thirty-seven of the public acts of eighteen hundred and ninety-nine, entitled "An act to provide for the examination, regulation, licensing and registration of physicians and surgeons and for the punishment of offenders against this act, and to repeal acts and parts of acts in conflict therewith," are hereby amended so as to read as follows:

Section 1. The Governor shall appoint, by and with the advice and consent of the Senate, ten resident electors of the State, who shall constitute a Board of Registration in Medicine. Not more than five of the persons so appointed shall be from the school of medicine known as regular; not more than two of the persons so appointed shall be from the school of medicine known as homeopathic; not more than two of the persons so appointed shall be from the school of medicine known as eclectic; and not more than one of the persons so appointed shall be from the school of medicine known as physio-medical, and the Governor may select such appointees from the latest lists filed in the office of the Secretary of State at Lansing by each of the four legally incorporated State medical societies of the schools of medicine as herein mentioned aforesaid, such lists to be certified to under oath of the president and secretary of each society respectively, and such lists to contain at least treble the number of names as each society has representatives on the board. But in the event that one or more of the societies above named, through their presidents or secretaries, shall from any cause neglect, omit or refuse to file as aforesaid, such lists or list, then and in that case the Governor shall appoint or fill the vacancies in said board without reference to such list or lists which the aforesaid society or societies have for any cause neglected, omitted or refused to file with the Secretary of State, as herein mentioned aforesaid; but the number of representatives from each of the schools of medicine shall be the same as provided for in this act. All persons so appointed shall be legally registered physicians of this State, shall be graduates in good standing of reputable medical colleges, and shall have been actively engaged in the practice of medicine in this State for at least six years immediately preceding the time of such appointment. The ten persons so appointed shall be appointed in two classes, each class to consist of five persons. The first class shall consist of those physicians appointed by the Governor under act number two hundred thirty-seven, laws of eighteen hundred ninety-nine, October first, A. D. nineteen hundred one, who shall serve during the time for which they were so appointed, namely: To October first, nineteen hundred five; and the second class shall be appointed to hold office for four years beginning with the first day of October of the present year, and both classes shall hold office until their successors are appointed; and thereafter the Governor shall appoint, before the first day of October of each biennial period, five persons qualified as aforesaid, in each class, to hold office for four years from the first day of October next ensuing. No member of said board shall belong to the faculty of any medical college or university. The Governor shall also fill vacancies occasioned by death or otherwise, and may remove any member for the continued neglect of duties required by this act. Vacancies in said board shall be filled in accordance with the provisions of this act for the establishment of the original board, and a person appointed to fill a vacancy shall hold office during the unexpired term of the member whose place he fills. The business of said board shall be transacted by and receive the concurrent vote of at least seven members.

Section 3. On and after the date of the passage of this act, all men and women who wish to begin

the practice of medicine and surgery in any of its branches in this State, shall make application to the State Board of Registration in Medicine, to be registered and for a certificate of registration. This registration and certificate shall be granted to such applicants as shall give satisfactory proofs of being twenty-one years of age and of good moral character, but only upon compliance with at least one of the following conditions contained in subdivisions one, two and three of this section:

First, That applicant shall be registered and given a certificate of registration if he shall satisfactorily pass an examination before the board upon the following subjects: Anatomy, physiology, chemistry, pathology, materia-medica and therapeutics, toxicology, histology, practice of medicine, surgery, obstetrics, gynaecology, mental and nervous diseases, diseases of the eye, ear, nose and throat, bacteriology, hygiene, public health laws of Michigan and medical jurisprudence; said examination to be conducted as follows:

(a) The applicant shall pay a fee of twenty-five dollars prior to examination: Provided, That the examination fee for graduates of any medical school in the State of Michigan, approved by said board, shall be the sum of ten dollars.

(b) The examination shall be in writing, oral, or both.

(c) The questions on all subjects, except in materia-medica and therapeutics and practice of medicine, shall be such as may be answered alike by all schools of medicine.

(d) The applicant shall, if possible, be examined in materia-medica and therapeutics and practice of medicine by those members of the board or by a qualified examiner appointed by the board, belonging to the same school as the applicant, and no applicant shall be rejected because of his adherence to any particular system of practice.

(e) An average percentage of at least seventy-five per cent. of correct answers shall be required from every candidate. No additional fee shall be charged by this board for the registration of those who successfully pass such examination: Provided, however, That such applicant for examination shall have a diploma from a legally incorporated, regularly established and reputable college of medicine within the states, territories, districts and provinces of the United States, or within any foreign nation (provided such foreign nation accord a like privilege to graduates of approved medical colleges of this State) having at least a four years' course of seven months in each calendar year, as shall be approved and designated by the Board of Registration in Medicine: Also Provided, That such applicant shall have, previous to the beginning of his course in medicine, a diploma from a recognized and reputable high school, academy, college or university, having a classical course, or shall pass an examination equivalent at least to the minimum standard of preliminary education adopted and published by the board before examiners appointed by and in accordance with the regulations of aforesaid board, and at such time and place as the board may designate: Provided, A student entering a college in Michigan, having a preliminary examination of a standard approved by the Board of Registration in Medicine shall not be required to take this examination: Provided, That this requirement of preliminary education shall not apply to those students who, on the date of the passage of this act, were regularly registered as students of legally organized and reputable medical colleges approved of by said board: And provided, also, That the requirement of medical education shall not apply to those graduates of legally organized and reputable medical colleges approved of by said board who had graduated from such colleges, previous to the date of the passage of this act; and students complying with the other provisions of this section who on January first of the present year were regularly registered as students of legally organized and reputable medical colleges of this State, approved of by said board, may obtain a certificate of registration as graduates of such colleges and without examination by the board upon payment of a fee of ten dollars. The Board of Registration in Medicine shall, from time to time, adopt and publish a minimum standard of medical education, and no medical college shall be approved and designated by said board under this subdivision one, of section three, unless, in the judgment of the board, it conforms with such standard.

Second, The applicant shall be registered and given a certificate of registration if he shall present a certified copy or certificate of registration or license which has been issued to said applicant in any foreign nation where the requirements of registration shall be deemed by said Board of Registration in Medicine to be equivalent to those of this act: Provided, Such country shall accord a like privilege to holders of certificates from this board. The fee for registration from applicants of this class shall be twenty-five dollars.

Third, The applicant shall be registered and given a certificate of registration if he shall present a certified copy of certificate of registration or license, which has been issued to said applicant within the states, territories, districts or provinces of the United States where the requirements for registration shall de beemed by the Board of Registration in Medicine to be equivalent to those of this act, and shall otherwise conform to the rules and regulations agreed upon between the State Board of which he is a licentiate and said board relative to the recognition and exchange of certificates between states: Provided, Such states shall accord a like privilege to holders of certificates from this board. The fee for registration from applicants of this class shall be twenty-five dollars;

Fourth, If any person shall unlawfully obtain and procure himself to be registered under this section, either by false and untrue statements contained in his application to the Board of Registration in Medicine, or by presenting to said board a false or untrue diploma or license, or one fradulently obtained, he shall be deemed guilty of a felony, and on conviction thereof shall be punished by a fine of not less than three hundred dollars nor more than five hundred dollars, or imprisonment at hard labor for not less than one year, nor more than three years, or both, at the discretion of the court, and shall forfeit all rights and privileges obtained or conferred upon him by virtue of such registration as a physician or surgeon;

Fifth, Any person who shall swear falsely in any affidavit or oral testimony made or given by virtue of the provisions of this act, or the regulations of the board of registration in medicine, shall be deemed guilty of perjury, and upon conviction thereof shall be subject to all the pains and penalties of perjury;

Sixth, The Board of Registration in Medicine shall refuse to issue a certificate of registration provided for in this section to any person guilty of grossly unprofessional and dishonest conduct of a character likely to deceive the public, and said board shall, after due notice and hearing, revoke a certificate issued subsequent to the date of the passage of this act, or subsequent to the date of the passage of act number two hundred thirty-seven of the public acts of eighteen hundred ninety-nine, for like cause or for offenses involving moral turpitude, habitual intemperance, the drug habit, or for fraud or perjury in connection with obtaining of a certificate of registration, or for a certificate obtained or issued through error, when such offenses shall have been legally established in a court of competent jurisdiction: And, provided further, After the passage of this act, the board may at its discretion revoke the certificate of registration, after due notice and hearing of any registered practitioner who inserts any advertisement in any newspaper, pamphlet, circular, or other written or printed paper, relative to venereal diseases or other matter of any obscene or offensive nature derogatory to good morals.

Section 7. Any person who shall practice medicine or surgery in this State without first complying with the provisions of this act, or any person who shall violate its provisions (except as heretofore provided in section three of this act), shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not more than one hundred dollars, or by imprisonment in the county jail for a period of not more than ninety days, or by both such fine and imprisonment, for each offense. It shall be the duty of the prosecuting attorneys of the counties of this State to prosecute violations of the provisions of this act.

EDITORIAL NOTES

Attention is being called more and more to the prevalence of a plan for insuring children, put in force by some of the insurance companies as a means of securing additional revenue. Physicians should be interested in this matter, inasmuch as some of them are necessary for the proper carrying out of the ideas of the companies. It is insurance *in petto*, the face of the policy being about $30.00 and the weekly payment being from five to ten cents, according to the age of the child. Agents are continually urged by their managers and department chiefs to secure as much insurance of any kind as they possibly can, and the policy on the life of a child is a tempting proposition, as $30.00 face with a weekly premium of even five cents is profitable insurance, inasmuch as the company gets nearly ten per cent. of the face of the policy the first year. When this is compared with the cost of even endowment insurance, it is readily seen that the cost, although it appears small, is in reality outrageous.

Primarily the idea of child insurance, on the part of the parents or guardians, when they are very poor, is to secure a fund sufficient for the decent burial of the little one in case of death; but among the poorest and most ignorant classes, which are the ones among which the most active solicitation for this class of insurance is made, the primary object is occasionally lost sight of, and the child is permitted to die of neglect for the purpose of securing the insurance money. This is a strong statement, but it is absolutely true. And with some few possible exceptions, the companies who do a large amount of business of this class are putting what amounts to direct temptation in the way of poor and unmoral people.

It is for the physician to set his face sternly against the abuse of this matter. As has been said, the physician is a necessary part of the scheme; and if physicians refuse to pass sufficiently favorable reports on the life of a child, the parents or guardians will be unable to secure a policy. There are some good features in child insurance, notably the one that saves the counties the burial expenses of pauper children; but there are so many bad features in this connection that physicians should hesitate to mix themselves up in it.

In a number of states, application has been made for laws to regulate this practice, and the time is likely to come when this form of insurance will have ceased to exist.

The Chicago Medical Society arranges district meetings for the convenience of its members in the outskirts. Such a plan is hardly feasible in Detroit, but an occasional meeting should be held in the outlying towns of the county, for the purpose of stimulating interest among the country members and giving them value received for their money paid as dues. Such trips would be pleasant outings for the city men and productive of much good to all.

The attention of school authorities is being called to the evil results that follow the issuing of general school supplies to scholars. It is the custom in several places to issue such articles as slates, books, papers and pencils to the classes in the morning, these being collected again at night. As a result, several epidemics have been started, owing to the fact that the children suck their pencils and thus spread contagion, to say nothing of the chances for infection from the other supplies.

New Instruments & Devices

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

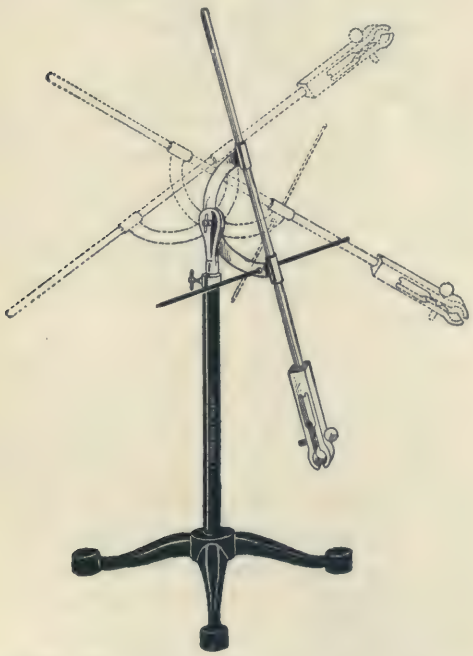
We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

UNIVERSAL X-RAY TUBE STAND.

This stand, a patent for which has already been applied for, is simple, and yet its construction admits of almost innumerable positions of the arm. Its base weighs eighteen pounds, securing stability, and the three extensions measure twelve inches in length. Owing to the firmness with which the stand rests, almost any size tube, together with a heavy shield, may be solidly held in its grip without vibration. One screw is all that is necessary for raising or lowering the stand.



It retails for $12.00.

RESPIRATOR.

For many forms of nose and throat troubles a convenient respirator is of great assistance to the physician and often a means of great relief to the patient. The device illustrated herewith is adapted for supplying medicated air directly to the affected parts, as well as for the prevention of contagion in zymotic diseases. Like other devices, it consists essentially of a sponge or pad for holding a medicated liquid, and some means of securing the holder to the nostrils and mouth in such a manner that the inhalation of air carries with it medication to the air-passages. The advantages of the form of device under consideration lie in its lightness and simplicity. It is constructed of aluminum, and is therefore lighter than many forms on the market. The pneumatic cushion with which it is supplied not only insures a close fit about the nostrils and mouth, but it distributes the pressure evenly, so that there is no binding or undue constraint. It is easily

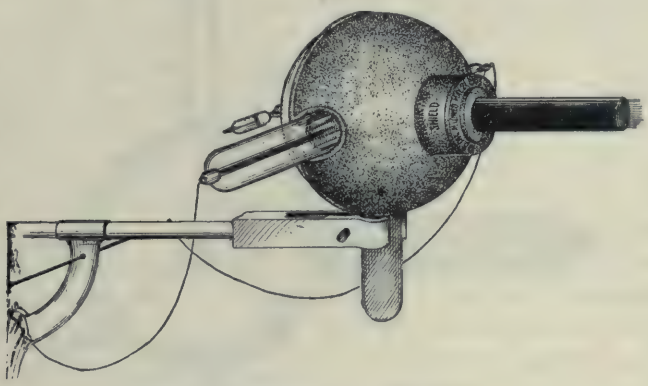
put on and removed, and for all purposes which a respirator generally answers it is an excellent device of its kind.

The manufacturers of this device handle also a number of inhalants, for asthma, catarrh, coughs and colds, and so on. The respirator alone costs the physician $3.50, or with one inhalant, $4.00. Extra inhalants, to meet the case in point, are sold at 75 cents each.

The retail price of the shield is $10.00. This is for size No. 1, the only one thus far on the market. It will take any size tube up to six inches in diameter at the bulb .

UNIVERSAL REGULATING CAVITY EXTENSION TUBE.

This device is made practically for the purpose of reaching internal diseases. It



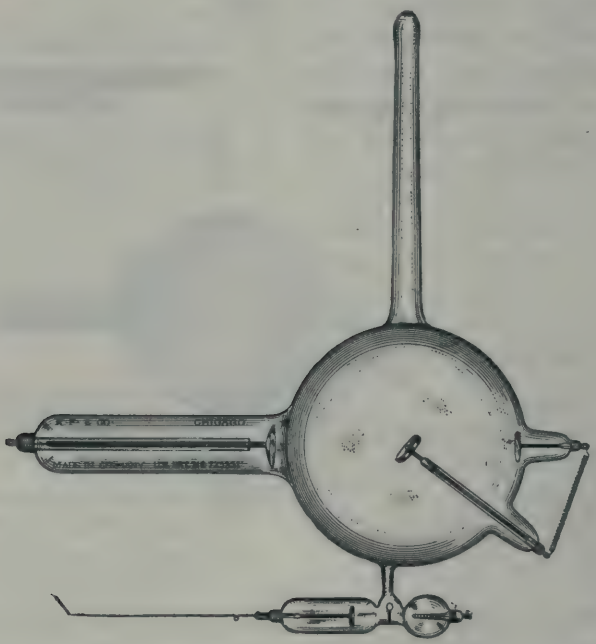
PROTECTIVE X-RAY TUBE SHIELD.

This device is claimed by the manufacturers to be the latest improvement in X-Ray work for the protection of the practitioner and the patient as well. It solidly covers the tube in a semi-spherical manner, as shown, and does not permit the X-rays to reach either the operator or the patient, except at the point toward which the treatment is being directed. Three different diaphragms are furnished with shield, so that any diseased portion of the body may be treated with the rays, without endangering the healthy tissues about the affected portion. Two extensions on the shield may be noted in the illustration, and these are used for internal treatment, without giving any shock to the patient. In fact, so complete is the protection that the tongue may be placed on the shield without any electrical effect becoming noticeable. The shield has received the hearty endorsement of the members of the profession who have thus far made use of it.

is applicable to the vagina and the rectum, as well as to the throat. Its superiority over some of the other extension tubes on the market lies in the fact that the X-Rays given out through the anode are led directly into the extension tube, so that if the tube is covered with a shield, a perfect picture may be taken from the end of the extension, and consequently the rays at this point are shown to be powerful and effective. The chief advantage of this condition is, of course, that the rays are in this manner brought into operation directly at the point to which it is desired to administer treatment. The tube is furnished with a universal regulator, which admits of the tube being kept constantly at a low vacuum. It is late and improved, for the patent on it was granted the manufacturer only on July 3 last.

Its retail price to physicians depends upon the thickness of the anode. The tube with thin anode costs $25.00, and with heavy anode $27.00.

A commercial use for the X-rays, quite apart from its medical use, is the invention of a Cincinnati man. He purposes making use of the rays in the tanning of hides, and the claim is made that the period required for this operation will by this means be reduced from four months to less than half an hour. The hides, it is said, are first soaked for four days in a chemical composition. It will be interesting to watch the outcome of this invention of a novel use for the X-rays.



In his address to the Minnesota State Medical Society, Dr. J. W. Andrews, president of the organization, took occasion to say a few tart things about the osteopathic legislation of last winter. He brands the osteopathic bill as "rank class legislation," and calls it "a great calamity and a blot upon the fair name of the state." His remedy for existing evils in Minnesota is organization among the physicians. This plan is now being carried on in the state, but it is by no means completed, and it is urged by Dr. Andrews that Minnesota, which led the way for the legislative regulation of medicine, should now take a high stand in medical matters, with the view of undoing some of the harm that has already been done.

A London dispatch announces the retirement of Sir Frederick Treves, of London, from active practice. Sir Frederick has been large in the public and professional eye of England for a number of years. He performed the recent operation on the present king, and is credited with the invention of appendicitis. It is said that he will enter Parliament, but will retain his post or surgery to the king (honorary) and adviser to the army medical board.

Dr. Arthur D. Holmes has resigned from the faculty of the Michigan College of Medicine and Surgery, to give his entire attention to his private practice. He was for eleven years lecturer on diseases of children and pediatrics at the college.

PROGRESS OF MEDICAL SCIENCE

SURGERY AND GYNECOLOGY.

Cullen (*Canadian Practitioner*, July '03), presents an exhaustive study of uterine myomata. His connection with Johns Hopkins Hospital gives him access to records of over a thousand cases seen there in the last fourteen years, the results of this extended experience being of great value in determining the preferable operative procedure in a given case. One should bear in mind the different varieties of myomata, their situation and size, the various degenerative processes which they may undergo and the complications which may arise.

At first, most myomata are interstitial and may remain so or may push outward or inward, forming subperitoneal or submucous nodules. These growths vary greatly in number and size; they may occupy any part of the uterus, even pushing out between the folds of the broad ligament or filling the entire pelvis. Simple myomata as a rule produce little change in the uterus, other than those entirely mechanical in nature, and where the Fallopian tubes are normal and no sloughing submucous myoma exists the uterus itself is perfectly normal and the uterine cavity may be opened up in operating, with little or no danger of infection.

Myomata, no matter where situated, often undergo softening, with disintegration of tissue, the resultant spaces usually filling with serous fluid, which in subperitoneal and intraligamentary myomata may become infected and suppuration ensue, with sloughing or necrotic areas. Other degenerative changes at all times liable to develop are those of malignancy, either sarcoma or carcinoma.

The clinical symptoms produced by myomata depend upon their size and their location, the submucous type causing hemorrhage, the other types pressure symptoms. The surgeon's duty is to remove the growth, sacrificing the reproductive organs as little as possible, consistent with safety. If the tubes are diseased, hysterectomy should be performed, as there is danger of infecting the cavities left in the uterus after removal of the myomata. When the appendages are normal and the uterine mucosa healthy, the uterus can often be saved by doing a myomectomy only, provided the nodules are few in number and accessible.

In general, operative treatment is indicated when frequent or profuse bleeding occurs, when the health of the patient is deteriorating, or when pressure symptoms develop, remembering always that operation is rendered more hazardous by delay, and that fully two per cent. of all uterine myomata become malignant at some period or other.

Alexander Hugh Ferguson (*J. A. M. A.*, July 4, '03), reviews the literature of the surgical treatment of nephritis, claiming priority for his own work in the so-called Edebohls operation, and discusses in a general way the growth of kidney surgery. It is only thirty-five years since the kidneys have been operated on at all, during which short period nephrectomy, nephrotomy and kidney fixation have developed, the two latter as a manifestation of conservative treatment, and, lastly, the capsule-splitting operation as a remedial measure in chronic interstitial nephritis.

In ten of the seventeen cases which Ferguson reports a V-shaped piece of the cortical and pyramidal tissues was re-

moved for microscopical study. He strips up the capsule freely, crosses each side underneath the hilum of the kidney, fastening each end to muscular tissue, to fix the kidney in contact with raw tissue, more vascular than the fatty capsule, and therefore more suitable structure to form vascular adhesions with the denuded organ. He attributes the excellent immediate results to relief of kidney tension, and believes that permanent benefit accrues from the establishment of collateral circulation with the diseased kidney cortex.

MEDICINE AND THERAPEUTICS.

Tapeworm.

A discussion upon this topic (*Northwest Medical Society of Philadelphia, J. A. M. A.*, July 4, '03), summarizes the principal points of etiology and treatment of this not uncommon disease. The beef tapeworm, *Tænia saginata*, the pork tapeworm, *Tænia solium*, and the broad worm, *Bothriocephalus latus*, are the common varieties, the former being most frequently found in this country. There are no positive diagnostic symptoms, except the finding of segments in the stools, which are always found sooner or later.

The principal difficulty found in dislodging the parasite arises from the nauseous nature of the mixtures in vogue as remedies, which are harder on the patient than the worm, and sometimes more toxic. The intestinal tract must be thoroughly emptied in advance by active purgation, and the patient required to fast for 24 hours before the medicine is administered. In the early morning—after the foregoing preparation—a 20 grain capsule of pelletierin tannate is given, and after this has operated freely, usually within two or three hours, the following prescription is given:

℞ Olei Resinae Aspidii
Etheris aa ℥ii
Hydrargari Chloridi Mitis gr xii

This is divided into sixteen capsule one to be given every ten minutes, r food being taken. In a short time th worm will be expelled, entire, with th head intact. If the worm is voided in a vessel of warm water it passes mo quickly, for if the temperature of the ve sel is lower than that of the intestin tract it is liable to recede.

Diphtheria of the Larynx.

Edwin Rosenthal (*Annals of Gyn cology and Pediatry*, July, '03), repor 100 cases of laryngeal diphtheria treate by antitoxin and intubation, with twenty five deaths. These cases ranged in ag from eight months to twelve years, 74 p cent. of them being under five years age. Antitoxin was used freely as soon each case was seen, and repeated in amp dosage according to indications. In near all of the fatal cases death resulted fro heart failure, the weakening of the vit force being the great danger to be dread ed; against this, present therapeut measures are almost powerless. Activ supportive treatment should be used every case from the first, but in the laryn geal type antitoxin, even in large dosag seems less efficacious than in other form of the disease.

Colon Infection, Simulating Typhoid.

Evans and Sailer (*Univ. of Penn. Med Bull.*, June, '03), report a case of this kin a continued fever due to a general colo bacillus infection, in which the bloo failed to react to either the typhoid or th paracolon bacillus, although the patien appeared to have an ordinary typhoid When tests were made, however, wit cultures of *Bacillus Coli Communis*, th reaction was positive, taking place eve in dilutions of 1 to 100.

The question hence arises, whethe there may not be a type of disease re sembling typhoid or paratyphoid, but du to an organism closely simulating thei specific germ, namely, the colon bacillus

LARYNGOLOGY, OTOLOGY AND RHINOLOGY

Adenoids.

The drift of opinion, according to Dr. Makuen, is more and more toward the early and complete removal of hypertrophied pharyngeal tonsils. Drs. E. J. Moure and Lafarelle, Bordeaux, France, have recorded the results of their examinations of 60 anatomic sections of the nasopharynx and the clinical study of 92 cases of adenoids, showing a great diversity in shape and size of this cavity and the impossibility of operating successfully in this region with instruments of fixed size and shape. They claim that digital examination should be made in all operative cases to ascertain whether the shape is, 1, arched; 2, contracted; 3, irregular, with a recess; these being the varieties illustrated by cuts from actual preparations.

Dr. O. Stewart reports the removal of an adenoid mass measuring three-eighths of an inch in length by three-quarters of an inch in depth, from a child eleven days old, with immediate relief of the symptoms, which were snoring and inability to nurse.

That there are still those who think that the removal of adenoids by operative measures is not necessary is indicated by the fact that Lapeyre reports the rapid disappearance of adenoid symptoms in twenty-eight cases by the internal administration of the tincture of iodine, in doses varying from 16 to 18 m. per day, in patients ranging from 5 to 9 years of age.

Treatment of Acute Sinusitis.

Dr. J. A. Stucky, (*J. A. M. A.*, Feb. 21, '03) says: Acute sinusitis, whether involving the ethmoid, frontal, maxillary or sphenoid, usually subsides spontaneously under appropriate antiphlogistic treatment, the chief indications being, first, to relieve suffering and discomfort, and, second, to prevent suppuration. When suppuration occurs, the imprisoned pus must be evacuated and thorough drainage maintained, or serious results may follow.

The patient is to be put to bed, room to be kept quiet and all bright light excluded as long as eyes are sensitive. Arouse the secretions with full dose of calomel, 5 to 10 grs., combined with small quantity of ipecac, this to be followed in six or eight hours by saline cathartic —sodium salicylate and sodium bromid, 10 gr. of each, pilocarpin gr. 1-10 to 1-20 in four ounces of water every two or four hours till pain is relieved and free diaphoresis established. The activity of the skin is to be maintained by frequent bathing, great care being used not to chill the patient when giving the bath. Dry heat applied to frontal and occipital regions by use of hot-water bags. Locally, the nasal douche, used both anteriorly and posteriorly, of hot normal saline solution, or Seiler's solution in one-half strength, twice daily; this not only keeps the passages clean, but is very soothing and grateful to the sufferer.

If the nasal passages are occluded or uncomfortably "stuffy" a small quantity of the following sprayed into the nostrils every two or four hours is most effective and rapid in its action: Sodium chlorid 5 gr., resorcin 5 gr., adrenalin sol. (1 to 1000) 1 dr., aqua 7 dr.

This strength of adrenalin is all that is necessary, practically no reaction following its use. Cocain and opiates are mentioned only to be condemned, because of their unpleasant reaction and having a tendency to thwart the objects aimed at in the treatment. Only in exceptional cases have I found their use advantageous.

Special care should be given the systemic conditions, the secretory and excretory functions maintained in an active state. On account of the great suscepti-

bility to recurrent attacks, convalescence should be guarded and the patient kept indoors until thoroughly restored.

Removal of the anterior end of the middle turbinate when it is so swollen as to occlude the natural outlet of the sinus is indicated in either inflammatory or suppuration trouble. In many cases this is the only surgical treatment needed.

OPHTHALMOLOGY.

Abstracts by Don. M. Campbell, M. D., L. R. C. S., Edin. "Sarcoma of the Choroid in a child."

William Evans Brimer (*Ophthalmic Record*, July, 1903), reports a case of sarcoma of the choroid in a child, the first departure from the normal appearance of eye being noticed at the age of about four years.

Between that age and the age of six years, at which time the case came under the author's care, the disease had been variously diagnosed as glioma of the retina and panophthalmitis.

The eye ball was enucleated and the orbit exenterated.

A microscopical examination showed the growth to be a sarcoma.

The subsequent history of the case showed a metastatic recurrence in the left frontal bone and a second one in the jaw and death ensued in four months after the operation.

Sarcoma is a rare disease in so young a child and the diagnosis between it, glioma retinae and certain forms of pseudo-gliomata is not at all easy.

Health Officer Kiefer's report on the small-pox conditions in Detroit is gratifying to the believer in vaccination. He states that on August 4 there were only four cases of small-pox in the city, and he adds the information that no new patients had been reported since July 22. About 20,000 people were vaccinated in the last canvass, and altogether about 70,000 have been vaccinated by the physicians detailed by the city for this purpose. Of this number a percentage of "takes" amounting to about 80 resulted. The common council of the city appropriated $30,000 for the final canvass, and of this sum only about $6,000 has thus far been expended.

Dr. Isaac N. Love, a well known physician and medical editor, died of apoplexy on June 18 last, on board the White Star liner, Aurania, as the ship was entering the harbor at New York. Dr. Love had been abroad with a patient. Four years ago he was located in St. Louis, where he published and edited the *Medical Mirror*, and when he removed to New York in 1899, the journal's offices were removed to that city. For a time he held the chair of Internal Medicine at the College of Physicians and Surgeons, but was obliged to give up this work to care for other affairs. He was greatly interested in criminology and one of his most advanced ideas was that the bodies of condemned criminals should be turned over to surgeons, that experiments for the benefit of humanity might be carried out on them.

On June 25 last, New Orleans inaugurated a system of sewers which is designed to place the city in the front rank of sanitary communities; the system will cost $18,000,000 and it is estimated that about five years will be required for the completion of the work. Imposing ceremonies marked the occasion. The mayor turned the first spadeful of earth in the enterprise, and a large number of honorary guests lent their presence. The movement for improved sanitary conditions in New Orleans began with the greatest vigor after the epidemic of fever in 1898 which proved so serious a menace to the health and prosperity of the city.

BOOK REVIEWS

Brewer's Surgery. A Text-Book of Surgery for Students and Practitioners. By George E. Brewer, A. M., M. D., Lecturer on Clinical Surgery at the College of Physicians and Surgeons, (Medical Department of Columbia University) New York. In one octavo volume of 712 pages, with 280 engravings and 7 plates in color and monochrome. Cloth, $4.00; Leather, $5.00, net. Lea Bros. & Co., Philadelphia and New York, 1903.

This book is the result of a need felt by Dr. Brewer for a comprehensive, but concise, text-book of surgery, for use by teachers of this subject. Being a teacher himself, the author knows what is wanted by other teachers for securing the best results, and being familiar with students of surgery, through his long experience with them, he knows what is necessary for them also. The effect of this knowledge has been the production of a work on surgery, eminently well fitted for the purpose for which it is designed. The text is concisely written and practical, the style sufficiently explanatory without being verbose, and the arrangement of material is such that the student is enabled to get the greatest number of necessary facts in the smallest possible compass.

Where technique is treated of, the author prefers to state clearly one or two methods of procedure which his own experience has shown him to be the best fitted for the case in hand; and it is an unquestionable fact that the book is thoroughly modern in every aspect. Reference is even made to the use of the rubber suit advocated by Dr. Geo. W. Crile, of Cleveland, mention of which was made in Dr. Crile's paper on the blood pressure in surgery, published in the Detroit Medical Journal in May of this year.

Practical methods are advocated and described. Theory has been left, with wisdom, rather to one side, and only so much theoretical knowledge as is likely to be of value to the student of surgery has been incorporated in the text of this work. Although there are a number of standard text-books on the subject of surgery already before the profession, we feel that the book of Brewer should meet with the hearty endorsement of practitioners as soon as it becomes familiar to them. Like all the Lea books, this one is handsomely published, and barring one or two illustrations from old and time-honored plates, is handsomely embellished by the pictures. Its price is a fair one for the value of the book, and it should have a ready and a large sale.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Etc., Etc. Edited by A. O. J. Kelly, A. M., M. D., of Philadelphia. With the Collaboration of Wm. M. Osler, M. D., Baltimore; John H. Musser, M. D., Philadelphia; Jas. Stewart, M. D., Montreal; John B. Murphy, M. D., Chicago; Thomas M. Rotch, M. D., Boston; John G. Clark, M. D., Philadelphia; James J. Walsh, M. D., New York; J. W. Ballantyne, M. D., Edinburg; John Harold, M. D., London; Edmund Landolt, Paris; Richard Kretz, M. D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Vol. II. Thirteenth Series, 1903. Pages, 308. Price, Cloth, $2.00 net. J. B. Lippincott Co., Publishers, Philadelphia, 1903.

All the good things promised by the publishers for the second volume of the thirteenth series of this valuable publication are duly on hand in the book which

lies on our desk. This series is one of the very best with which we are acquainted. It handles interesting and practical matter in an efficient and thorough manner, and the books which compose it form an agreeable addition to the library of any physician who is minded for reading something of medical progress.

A timely symposium on the summer diarrhœas of children is the first thing that engages our attention this month. It is the joint work of six well known medical writers, who have contributed much of value, and practical knowledge. A number of useful prescriptions form a not unimportant part of this portion of the volume. Eugene L. Opie contributes a practical article on disease of the pancreas, and a joint article by John B. Deaver and George P. Mueller, on the diagnosis and surgical treatment of disease of the pancreas adds to the value of this section of the book.

Trunecek's serum, used in arteriosclerosis, is discussed by Léopold Lévi, of Paris, who finds the Trunecek formula to be a modification of that of Hoppe-Seyler. Reports of a number of cases successfully treated with the serum are furnished. Another Parisian physician, Charles Bouchard, discusses the question of local treatment in general, and some considerations of the rest treatment, its indications and technique, are furnished by John Madison Taylor, of Philadelphia.

In the department of medicine, Alexander Haig writes of the etiiology, prevention and treatment of a common cold, and F. J. Poynton has some valuable commentary on valvular affections of the heart. The surgical department contains among other contributions one from George W. Gay on the diagnosis and treatment of hemorrhoids, and W. F. Hamilton contributes a singularly valuable paper on cirrhosis of the liver in children, with reports of three cases. The ever present and always interesting problem of sterility in women is treated by J. Riddle Goffe and the volume closes with an article by Prof. Edmund Landolt on the question of surgical intervention in paralysis of the ocular muscles. The whole volume is handsomely published and well illustrated, and is a good number in a good series.

The following lucid explanation is taken *literatim* from the issue of a Worcester, Mass., paper, dated July 25 last: "By breathing through the nose we protect ourselves from bacteia, for the nose is especially designed to filter out the bactuia. Out of 1,000 recognized species of species of bacteria, some 200 grow in the mouth, if there is any particle of food left in the mouth after brushing the teeth. There is another channel of infection, especially in children, a break in the skin." Armed with this exact knowledge, a family will know exactly how to combat the savage "bactuia."

At a meeting of the British Medical Association last month Dr. Griffiths, the president, took occasion to declare that even moderate improvement in sanitary conditions in Great Britain would result in the annual saving of at least 6,000 lives. He wants a better set of sanitary laws, and a more thorough enforcement of those now in existence.

An interesting account of empirical surgery comes from China, where Dr. William H. Logan, of Bethany, Ill., is a missionary, with his wife. The doctor was attacked with appendicitis, and gave his wife instructions regarding an operation for his relief, which she successfully performed. After the patient had sufficiently rallied from the operation to admit of his being moved, Mrs. Logan took him 800 miles by wagon to a physician, where the after-care was completed.

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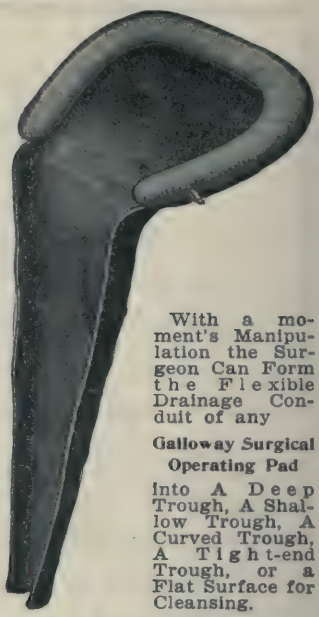

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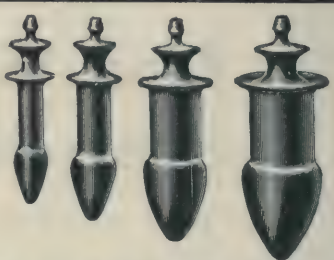

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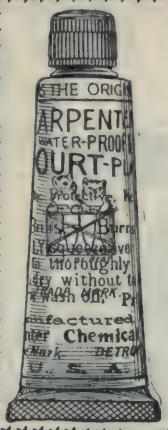

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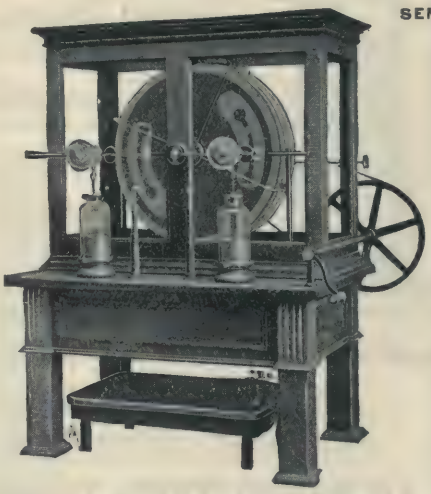

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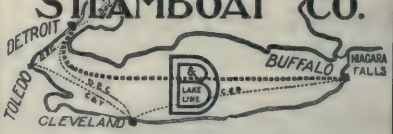

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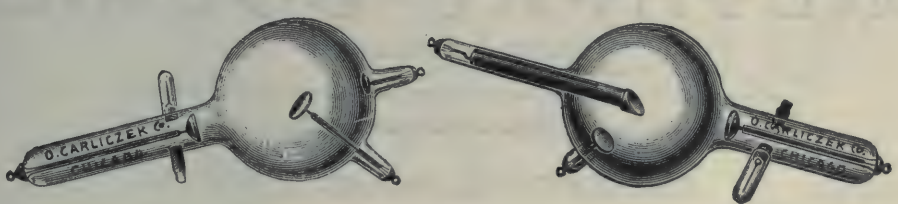

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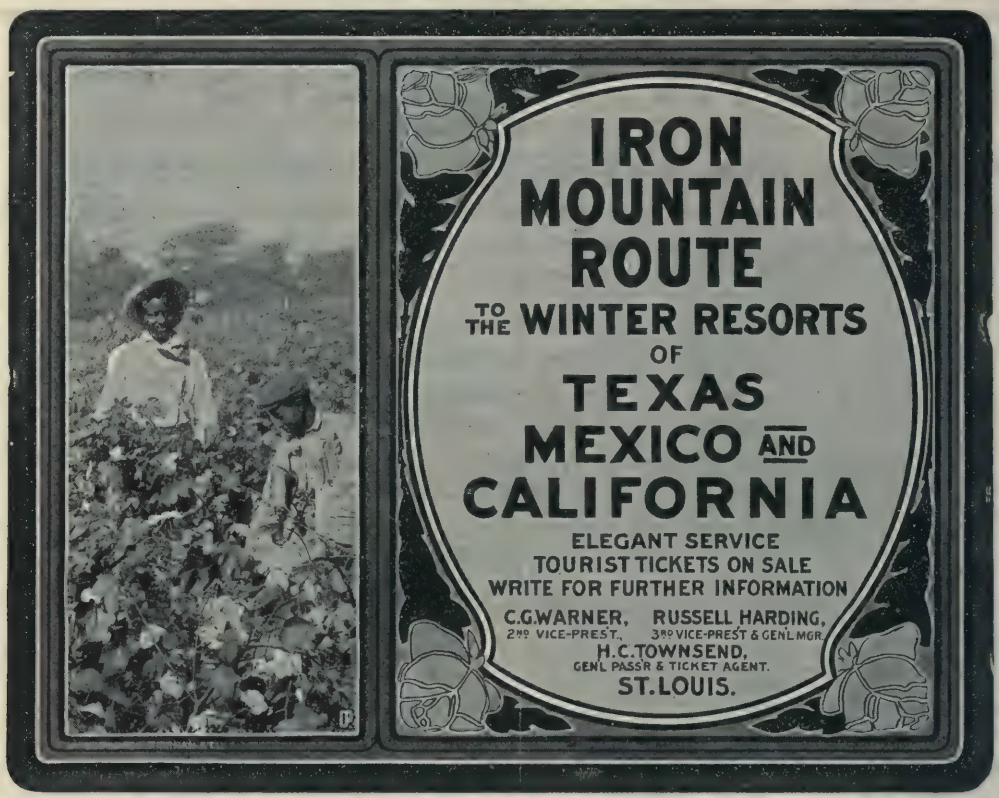

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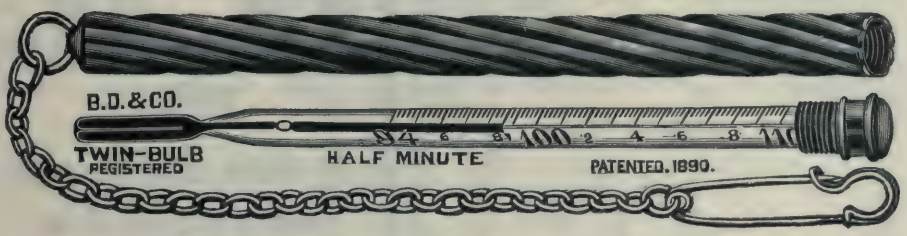

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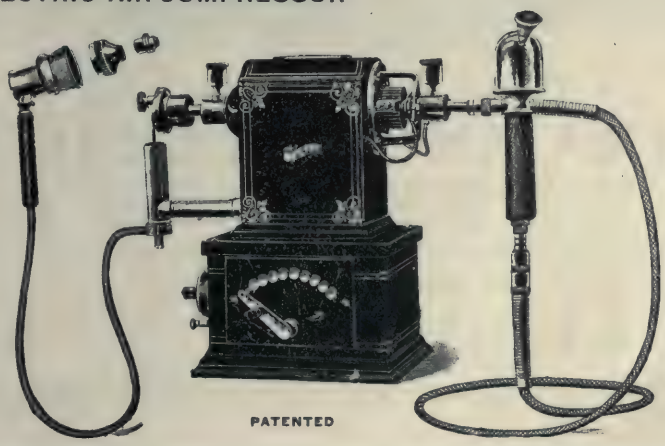

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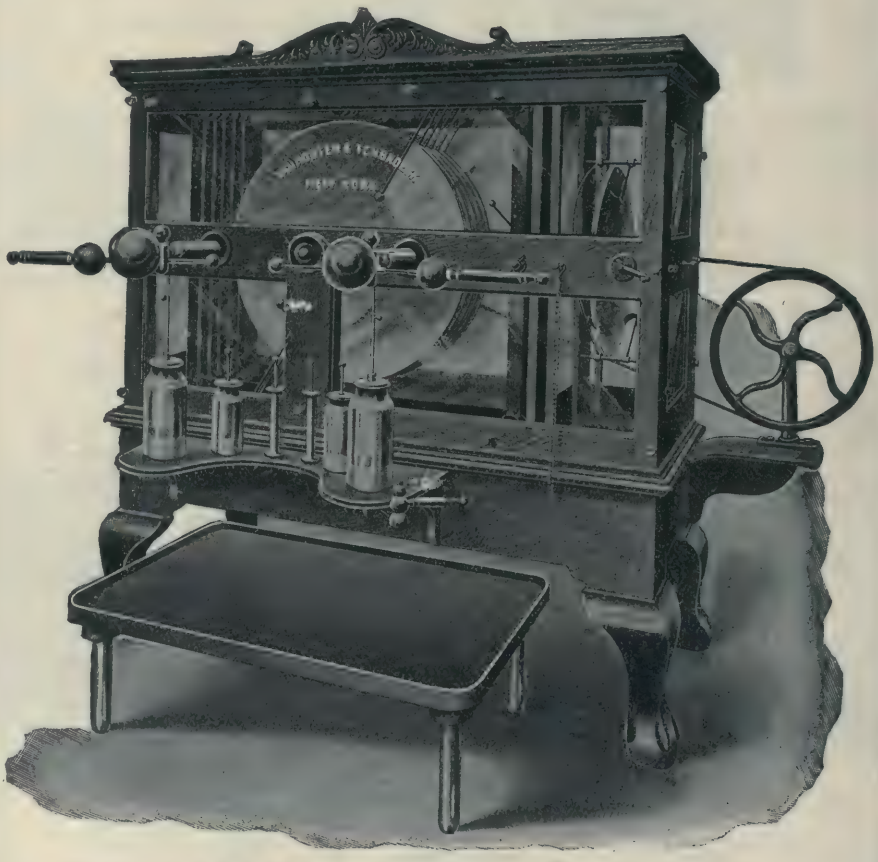

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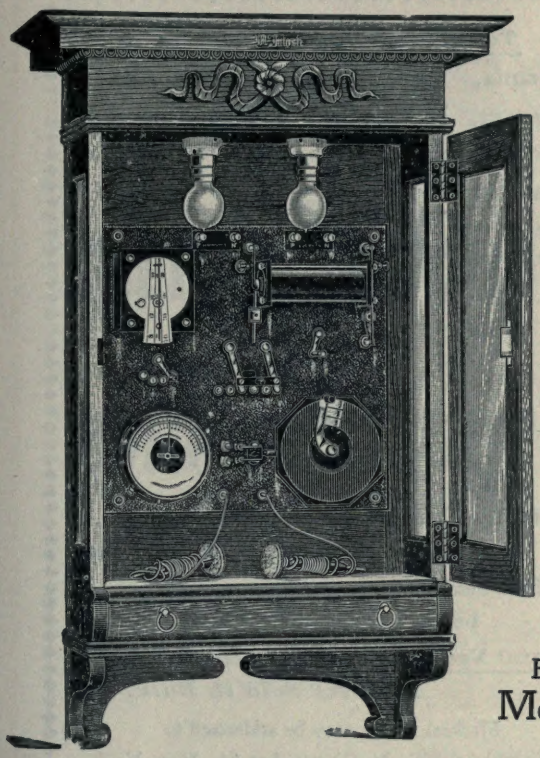

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